

# TABLES OF CIRCULAR AND HYPERBOLIC SINES AND COSINES

*for Radian Arguments*

*Prepared by the*

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WORK PROJECTS ADMINISTRATION  
for the City of New York

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## PREFACE

The following table is the fourth in a series of mathematical tables prepared by the *Project for the Computation of Mathematical Tables* conducted by the Federal Works Agency, Work Projects Administration for the City of New York, under the sponsorship of the National Bureau of Standards, Washington, D. C., Dr. Lyman J. Briggs, Director.

This Project was approved by the President of the United States and was undertaken on January 3, 1938 as Official Project No. 365-97-3-11 of the Works Progress Administration "to employ needy professional and technical persons in planning, computing and making available a series of mathematical tables, with the assistance of qualified men and organizations." When in December, 1938, Project 365-97-3-11 exhausted its funds, Project 765-97-3-10 was organized by the Works Progress Administration to continue the work. The Emergency Relief Act of 1939 discontinued the Works Progress Administration and established in its place the Work Projects Administration. Project 765-97-3-10 was continued by the new organization and is responsible for the preparation of this volume.

The activities of the Project consist of the preparation and computation of tables, according to procedures approved by the Director and Staff of the National Bureau of Standards, the Sponsoring Agency, and by the Coordinator of Statistical Projects and Consultant Committees of the Work Projects Administration.

Mr. Malcolm Morrow, of the Works Progress Administration in Washington, D. C., was instrumental in the preliminary planning of the Project. The initial plans were formulated at a conference which was called by Dr. Briggs, who had accepted the sponsorship of the Project. The conference was held at the Bureau of Standards in Washington on January 28, 1938. The following members of the "Committee on Bibliography of Mathematical Tables and Aids to Computation" of the National Research Council were present:

Professor Albert A. Bennett, Chairman of the Committee,  
Brown University, Providence, Rhode Island.

Professor R. C. Archibald,  
Brown University, Providence, Rhode Island.

Professor H. T. Davis,  
Northwestern University, Evanston, Illinois.

Professor D. H. Lehmer,  
Lehigh University, Easton, Pa.

There were also present the following representatives of the  
Works Progress Administration:

Mr. Malcolm Morrow, Works Progress Administration,  
Washington, D. C.

Mr. Charles B. Lawrence, Jr., Coordinator of Statistical  
Projects, New York City.

Dr. Arnold N. Lowan, Technical Supervisor of the Project,  
New York City.

By special invitation, Dr. C. E. Van Orstrand, Geophysicist  
of the U. S. Geological Survey, also took part in the conference.  
Mr. E. C. Crittendon, Assistant Director of the Bureau of  
Standards and Dr. L. B. Tuckerman, Assistant Chief of the  
Division of Mechanics and Sound, represented the National  
Bureau of Standards.

The computation of the function  $U_n(x) = x^n/n!$  was recommended at this conference. Subsequently, Professor Lehmer suggested an extensive program involving the computation of the functions  $e^x$ ,  $\sin x$  and  $\cos x$ , which depend on the function  $U_n(x) = x^n/n!$  and of the functions  $Si(x)$ ,  $Ci(x)$ ,  $Ei(x)$  and  $-Ei(-x)$ , which involve  $T_n(x) = U_n(x)/n$ . It was suggested that the functions be tabulated to nine decimals for  $x$  ranging between 0 and 2 at intervals of 0.0001.

Extensive tables of exponentials at intervals of 0.0001 as well as of  $\sin x$  and  $\cos x$  at intervals of 0.001 have already been computed by this Project, by methods not directly involving  $U_n(x)$ . However, it was convenient to compute the latter function in the course of the computation of  $T_n(x)$ . With the values of  $U_n(x)$  available, it was deemed worthwhile to extend our table of trigonometric functions and to include in addition the hyperbolic functions.

The present volume includes the circular and hyperbolic functions. The functions  $Si(x)$ ,  $Ci(x)$ ,  $Ei(x)$  and  $-Ei(-x)$  will be published in a subsequent volume.

*The assistance given by the Board of  
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## Foreword<sup>1</sup>

The trigonometries based on the circular and hyperbolic functions are a fundamental part of pure and applied mathematics.

Even in their simplest forms, the circular and hyperbolic functions oftentimes represent natural phenomena as, for example, the periodic flow of solar heat at a given depth in the earth is represented approximately by a single sine term; and the curve assumed by a cable suspended between two points, the catenary, the well-known curve of the suspension bridge, is represented by hyperbolic sines and cosines. The more complicated relations are represented by functions of functions in which functions like  $\sin x$  and  $\sinh x$  appear as factors, exponents, or individual terms. A simple illustration is the product of an exponential and a sine which represents the temperatures resulting from the annual flow of solar heat into and out of the earth. The preceding illustration is merely the simplest application of the Fourier series by means of which natural phenomena of the greatest complexity in many branches of science, especially in the mathematical theory of heat conduction, can be represented to almost any desired degree of precision by the use of circular and hyperbolic functions. These functions are used very extensively, also, in the mathematical theories of elasticity, electricity, hydrodynamics, mathematical statistics, and other subjects.

Considered from the standpoint of economy of human energy, the advantage of having reliable and efficient tables at one's disposal can hardly be over-estimated. In fact, the amount of energy lost in using inadequate tables exceeds by many times the total quantity of energy required to construct the necessary tables by an organization of mathematicians and computers.

Fortunately, once a function is accurately computed and properly tabulated, it belongs to the present and future ages; and, furthermore, inasmuch as tables of the required accuracy and convenience frequently lead to new applications, no one can foresee the benefits that will gradually accrue as the result of constructing a mathematical table which is fundamental in character.

C. E. VAN ORSTRAND

<sup>1</sup> Approved for publication by the Director of the U. S. Geological Survey.



# CONTENTS

|   | Page |
|---|------|
| INTRODUCTION  |      |
| Table I    Circular and Hyperbolic Sines and Cosines<br>[0.0000(0.0001)1.9999; 9] ..... | 1    |
| Table II    Circular and Hyperbolic Sines and Cosines<br>[0.0(0.1)10.0; 9] .....        | 402  |
| Table III   Conversion Table .....  | 404  |

Note: The figures in the square brackets give the range and interval of the argument, and the number of decimal places. In Table II, for instance, the range is from 0.0 to 10.0 at intervals of 0.1 to nine decimal places.





## INTRODUCTION

The circular and hyperbolic functions tabulated in this volume may be defined by the infinite series:

$$\text{I} \quad \sin x = U_1(x) - U_3(x) + U_5(x) - U_7(x) + \dots$$

$$\text{II} \quad \cos x = U_0(x) - U_2(x) + U_4(x) - U_6(x) + \dots$$

$$\text{III} \quad \sinh x = U_1(x) + U_3(x) + U_5(x) + U_7(x) + \dots$$

$$\text{IV} \quad \cosh x = U_0(x) + U_2(x) + U_4(x) + U_6(x) + \dots$$

where  $U_n(x) = x^n/n!$

The starting point in the computation of the functions under consideration was the computation of  $U_n(x)$ . The values of this function for the key arguments  $x_0 = 0.01, 0.02, \dots$  were computed to fifteen decimal places for  $n = 0, 1, 2, \dots, p$ , where  $p$  is such that  $U_p(x_0)$  is equal to or smaller than one unit in the fifteenth place. The values of  $U_n(x)$  for all other arguments were computed with the aid of the recurrence formula:

$$U_n(x \pm h) = U_n(x) \pm U_1(h) U_{n-1}(x) + U_2(h) U_{n-2}(x) \pm \dots \\ + (-1)^n U_n(h) \text{ where } h = 0.0001.$$

Starting with the given key value  $U_n(x_0)$ , a first application of the recurrence formula yielded the values of  $U_n(x_0 + h)$  and  $U_n(x_0 - h)$ . Successive application of the recurrence formula generated the values of  $U_n$  for the successive pairs of arguments  $x_0 + 2h$  and  $x_0$ ;  $x_0 + 3h$  and  $x_0 + h$ , etc. . . . The method was therefore stepwise and self-checking.

A simple analysis led to the conclusion that the one-hundredth value computed by the recurrence formula must agree with the pre-computed value for the next higher key argument  $x_0 + 0.01$  to within three units in the thirteenth place. This served as an additional check on the accuracy of the values of  $U_n(x)$ .

From the basic terms  $U_n(x)$ , the following sums were computed:

$$S_0 = U_0 + U_4 + U_8 + \dots$$

$$S_2 = U_2 + U_6 + U_{10} + \dots$$

$$e^x = S_0 + S_1 + S_2 + S_3$$

$$S_1 = U_1 + U_5 + U_9 + \dots$$

$$S_3 = U_3 + U_7 + U_{11} + \dots$$

$$e^{-x} = S_0 - S_1 + S_2 - S_3$$

The functions to be tabulated were obtained from the relations:

$$\sin x = S_1 - S_3$$

$$\cos x = S_0 - S_2$$

$$\sinh x = S_1 + S_3$$

$$\cosh x = S_0 + S_2$$

The values of  $e^x$  and  $e^{-x}$  were compared with those given in our comprehensive tables of these functions<sup>1</sup>, computed by a different method. The agreement of the values served as a check on the accuracy of the functions  $\sinh x$  and  $\cosh x$ . These functions were further tested by comparing the sums of groups of ten entries with the precomputed sums obtained in the process of checking the table of exponential functions.

The values of  $\sin x$  and  $\cos x$  at intervals of 0.001 were compared with the values given in Van Orstrand's table<sup>2</sup> and in our own tables of circular functions, computed by an independent method.<sup>3</sup>

The values of the circular and hyperbolic functions which had undergone the tests just described were rounded to nine decimal places and typed from the worksheets onto a form from which this volume was reproduced by a photo-offset process.

The typewritten manuscript was carefully proofread against the worksheets and then subjected to a differencing test designed to detect errors which may have been overlooked in previous tests. Finally, the manuscript was subjected to an additional proofreading against the worksheets with the primary object of checking the roundings. It is believed that the rounding error does not exceed 0.51 units in the ninth decimal place.

## DIRECT INTERPOLATION

The following formulae based on Taylor's expansion will yield values correct to within one unit in the ninth decimal place.

- (1)  $\sin (x \pm pw) = \sin x \pm pw \cos x - \frac{1}{2} p^2 w^2 \sin x$
- (2)  $\cos (x \pm pw) = \cos x \mp pw \sin x - \frac{1}{2} p^2 w^2 \cos x$
- (3)  $\sinh (x \pm pw) = \sinh x \pm pw \cosh x + \frac{1}{2} p^2 w^2 \sinh x$
- (4)  $\cosh (x \pm pw) = \cosh x \pm pw \sinh x + \frac{1}{2} p^2 w^2 \cosh x$

In the above formulae  $w = 0.0001$ . If  $f(x \pm pw)$  denotes any of the above functions and  $f(x)$  the tabulated value corresponding to the argument  $x$  which is nearest to  $x \pm pw$ , the value of  $p$  will

<sup>1</sup> Tables of the Exponential Function  $e^x$ . Project for the Computation of Mathematical Tables, W. P. A., N. Y. C., 1939.

<sup>2</sup> Tables of the Exponential Function and of the Circular Sine and Cosine to Radian Argument, Vol. XIV, Fifth Memoir, National Academy of Sciences, 1921.

<sup>3</sup> Table of Sines and Cosines for Radian Arguments, Project for the Computation of Mathematical Tables, W. P. A., N. Y. C., 1939.

be no greater than  $\frac{1}{2}$ , and the last term in the above formulae, involving  $p^2w^2$ , will be less than  $1.3 \times 10^{-9}$  and  $4.8 \times 10^{-9}$  for the circular and hyperbolic functions respectively. Allowing one unit for rounding, the error of linear interpolation will therefore be less than  $2.3 \times 10^{-9}$  in the circular functions and less than  $5.8 \times 10^{-9}$  in the hyperbolic functions.

Example:

Let it be required to find  $\sinh(1.757660789)$ .

Solution:

$$\begin{array}{rcl}
 x = 1.7577 & \cosh x & = 2.985763 \\
 p = .39211 & \frac{1}{2} p^2 w^2 & = .76 \times 10^{-9} \\
 & \sinh x & = 2.813321564 \\
 -pw \cosh x & & = -.0001170748 \\
 & & \hline
 & & 2.8132044892 \\
 \frac{1}{2} p^2 w^2 \sinh x & = & 21 \\
 \sinh(1.757660789) & = & \hline
 & & 2.813204491
 \end{array}$$

## INVERSE INTERPOLATION

Let  $f(x) = X$  denote any of the circular or hyperbolic functions tabulated, and let it be required to find the value of the inverse function  $x = F(X)$  when  $X$  is given. Since  $X$  is periodic,  $x$  will be a multiple-valued function; it will suffice to confine ourselves to the principal solution and to consider the case when  $X$  is positive.

Generally  $X$  will not be a tabulated value, but will lie between two tabulated values  $X_1$  and  $X_1 + d$ , corresponding to two consecutive arguments  $x_1$  and  $x_1 + 0.0001$ . Hence, the value of  $x$  may usually be given by inspection to four decimal places, with an error less than  $\frac{1}{2} 10^{-4}$ . By interpolation, it is possible to express  $x = F(X)$  more accurately; the maximum attainable accuracy varies with  $X$ .

In the table, the value of  $x$  is assumed exact and the tabulated value of  $f(x)$  is given to nine decimal places. In inverse interpolation, it is convenient to regard  $f(x) = X$  as exact, in which case  $x$  is inexact. The relation  $dF(X) = F'(X) dX$  affords a close approximation to the error in  $x$  if  $X$  is regarded as exact. If we replace  $dX$  by the upper bound of error in the tabulated values, namely  $\frac{1}{2} 10^{-9}$ , we shall have a close estimate of the upper bound of the error in  $x = F(X)$ .

The differential expressions for the functions tabulated are given below:

$$\begin{aligned} d(\sin^{-1}X) &= \frac{dX}{\sqrt{1-X^2}} & d(\cos^{-1}X) &= \frac{-dX}{\sqrt{1-X^2}} \\ d(\sinh^{-1}X) &= \frac{dX}{\sqrt{1+X^2}} & d(\cosh^{-1}X) &= \frac{dX}{\sqrt{X^2-1}} \end{aligned}$$

An examination of these expressions shows that  $x = \sinh^{-1} X$  can be considered correct to  $\frac{1}{2} 10^{-9}$  for all tabulated arguments. In the case of the remaining three functions,  $F(X)$  is considerably less accurate when  $X$  is close to unity. If we regard the entries  $X$  as exact, the following table gives the number of decimal places  $n$  which may be given in the inverse function  $x = F(X)$  with error less than one unit in the  $n$ 'th place:

| $ 1 - X $                                 | $n$ |
|---|-----|
| $5.0 \times 10^{-9} - 1.2 \times 10^{-7}$ | 5   |
| $1.2 \times 10^{-7} - 1.2 \times 10^{-5}$ | 6   |
| $1.2 \times 10^{-5} - 1.2 \times 10^{-3}$ | 7   |
| $1.2 \times 10^{-3} - 0.12$               | 8   |
| $0.12 - 1.0$                              | 9   |

( $X = \sin x$ ,  $\cos x$ , or  $\cosh x$ )

For example, the tabulated value of  $\cos(0.01)$  is  $1-0.00005$ . But it may be readily verified that  $\arccos(1-0.00005) = 0.0100000417$ ; thus, in this case only seven decimal places may be regarded as correct in the value of  $x$ . This is in agreement with the value of  $n$  given in the above table.

Since an interpolated value is in general no more accurate than the tabulated values between which interpolation is performed, the values of  $n$  given above indicate the maximum number of decimal places in the values of  $\sin^{-1} X$ ,  $\cos^{-1} X$ ,  $\cosh^{-1} X$ , which may be regarded as correct.

The interpolation formulae given below will yield the maximum attainable accuracy if inverse interpolation is performed for any of the functions given in this volume.

Let  $X$  be a value lying between two tabulated entries  $A$  and  $A + d$ , corresponding to two consecutive arguments  $x_0$  and  $(x_0 \pm w)$ . If  $X - A = a$ , and  $a/d = p$ , the formulae are:

$$\begin{array}{ll} (1) \sinh^{-1} X = x_0 + pw + K & (2) \cosh^{-1} X = x_0 + pw + K \\ (3) \sin^{-1} X = x_0 + pw - K & (4) \cos^{-1} X = x_0 - pw + K \end{array}$$

$$\text{where } K = \frac{1}{2} p (1-p) w^3 \frac{X}{d}$$

It may be verified that the value of  $K$  in the above formulae has an upper bound of  $2.6 \times 10^{-n}$  ( $n$  as previously defined) in the case of the functions  $\cosh^{-1} X$ ,  $\sin^{-1} X$ , or  $\cos^{-1} X$ , and is always less than  $1.3 \times 10^{-9}$  in the case of  $\sinh^{-1} X$ . For all the functions under consideration, linear interpolation will be in error by less than  $4 \times 10^{-9}$  after rounding. The formulae given above will therefore yield values only slightly more accurate than those obtained by linear interpolation.

Example:

Let it be required to find  $\sinh^{-1} 2.813204491$

Solution:

$$\begin{array}{llll} A + d = \sinh(x_0 + w) & = 2.813321564 & d = 298562 \\ A = \sinh x_0 & = 2.813023002 & a = 181489 \\ X & = 2.813204491 & \\ p = a/d & = 0.607877 & w^3 X/d = 9.4 \times 10^{-9} \\ & = 1.7576 \\ pw & = 0.0000607877 \\ K = \frac{1}{2} p (1-p) w^3 X/d & = & 11 \\ \sinh^{-1}(2.813204491) & = 1.757660789 \end{array}$$

As a check on the calculations, the values of  $\sinh(1.757660789)$  may be computed with the aid of the formulae for direct interpolation. This yields  $X = 2.813204491$  as is seen from the example treated in the section on direct interpolation.

When  $|1 - X|$  is less than 0.12 and  $x = F(X)$  is any of the functions  $\sin^{-1} X$ ,  $\cos^{-1} X$ , or  $\cosh^{-1} X$  whose value is required, it is of course possible to find  $\sqrt{|1 - X^2|}$ , and to interpolate in the corresponding range of  $\cos x$ ,  $\sin x$ , or  $\sinh x$ , where inverse interpolation is more accurate.

## TABLE I



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.0000 | 0.0000 00000 | 1.0000 00000 | 0.0000 00000 | 1.0000 00000 |
| .0001  | .0001 00000  | 0.9999 99995 | .0001 00000  | .0000 00005  |
| .0002  | .0002 00000  | .9999 99980  | .0002 00000  | .0000 00020  |
| .0003  | .0003 00000  | .9999 99955  | .0003 00000  | .0000 00045  |
| .0004  | .0004 00000  | .9999 99920  | .0004 00000  | .0000 00080  |
| 0.0005 | 0.0005 00000 | 0.9999 99875 | 0.0005 00000 | 1.0000 00125 |
| .0006  | .0006 00000  | .9999 99820  | .0006 00000  | .0000 00180  |
| .0007  | .0007 00000  | .9999 99755  | .0007 00000  | .0000 00245  |
| .0008  | .0008 00000  | .9999 99680  | .0008 00000  | .0000 00320  |
| .0009  | .0009 00000  | .9999 99595  | .0009 00000  | .0000 00405  |
| 0.0010 | 0.0010 00000 | 0.9999 99500 | 0.0010 00000 | 1.0000 00500 |
| .0011  | .0011 00000  | .9999 99395  | .0011 00000  | .0000 00605  |
| .0012  | .0012 00000  | .9999 99280  | .0012 00000  | .0000 00720  |
| .0013  | .0013 00000  | .9999 99155  | .0013 00000  | .0000 00845  |
| .0014  | .0014 00000  | .9999 99020  | .0014 00000  | .0000 00980  |
| 0.0015 | 0.0014 99999 | 0.9999 98875 | 0.0015 00001 | 1.0000 01125 |
| .0016  | .0015 99996  | .9999 98720  | .0016 00001  | .0000 01280  |
| .0017  | .0016 99999  | .9999 98555  | .0017 00001  | .0000 01445  |
| .0018  | .0017 99999  | .9999 98380  | .0018 00001  | .0000 01620  |
| .0019  | .0018 99999  | .9999 98195  | .0019 00001  | .0000 01805  |
| 0.0020 | 0.0019 99999 | 0.9999 98000 | 0.0020 00001 | 1.0000 02000 |
| .0021  | .0020 99998  | .9999 97795  | .0021 00002  | .0000 02205  |
| .0022  | .0021 99998  | .9999 97580  | .0022 00002  | .0000 02420  |
| .0023  | .0022 99998  | .9999 97355  | .0023 00002  | .0000 02645  |
| .0024  | .0023 99998  | .9999 97120  | .0024 00002  | .0000 02880  |
| 0.0025 | 0.0024 99997 | 0.9999 96875 | 0.0025 00003 | 1.0000 03125 |
| .0026  | .0025 99997  | .9999 96620  | .0026 00003  | .0000 03380  |
| .0027  | .0026 99997  | .9999 96355  | .0027 00003  | .0000 03645  |
| .0028  | .0027 99996  | .9999 96080  | .0028 00004  | .0000 03920  |
| .0029  | .0028 99996  | .9999 95795  | .0029 00004  | .0000 04205  |
| 0.0030 | 0.0029 99996 | 0.9999 95500 | 0.0030 00005 | 1.0000 04500 |
| .0031  | .0030 99995  | .9999 95195  | .0031 00005  | .0000 04805  |
| .0032  | .0031 99995  | .9999 94880  | .0032 00005  | .0000 05120  |
| .0033  | .0032 99994  | .9999 94555  | .0033 00006  | .0000 05445  |
| .0034  | .0033 99993  | .9999 94220  | .0034 00007  | .0000 05780  |
| 0.0035 | 0.0034 99993 | 0.9999 93875 | 0.0035 00007 | 1.0000 06125 |
| .0036  | .0035 99992  | .9999 93520  | .0036 00008  | .0000 06480  |
| .0037  | .0036 99992  | .9999 93155  | .0037 00008  | .0000 06845  |
| .0038  | .0037 99991  | .9999 92780  | .0038 00009  | .0000 07220  |
| .0039  | .0038 99990  | .9999 92395  | .0039 00010  | .0000 07605  |
| 0.0040 | 0.0039 99989 | 0.9999 92000 | 0.0040 00011 | 1.0000 08000 |
| .0041  | .0040 99989  | .9999 91595  | .0041 00011  | .0000 08405  |
| .0042  | .0041 99988  | .9999 91180  | .0042 00012  | .0000 08820  |
| .0043  | .0042 99987  | .9999 90755  | .0043 00013  | .0000 09245  |
| .0044  | .0043 99986  | .9999 90320  | .0044 00014  | .0000 09680  |
| 0.0045 | 0.0044 99985 | 0.9999 89875 | 0.0045 00015 | 1.0000 10125 |
| .0046  | .0045 99984  | .9999 89420  | .0046 00016  | .0000 10580  |
| .0047  | .0046 99983  | .9999 88955  | .0047 00017  | .0000 11045  |
| .0048  | .0047 99982  | .9999 88480  | .0048 00018  | .0000 11520  |
| .0049  | .0048 99980  | .9999 87995  | .0049 00020  | .0000 12005  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.0050 | 0.0049 99979 | 0.9999 87500 | 0.0050 00021 | 1.0000 12500 |
| .0051  | .0050 99978  | .9999 86995  | .0051 00022  | .0000 13005  |
| .0052  | .0051 99977  | .9999 86480  | .0052 00023  | .0000 13520  |
| .0053  | .0052 99975  | .9999 85955  | .0053 00025  | .0000 14045  |
| .0054  | .0053 99974  | .9999 85420  | .0054 00026  | .0000 14580  |
| 0.0055 | 0.0054 99972 | 0.9999 84875 | 0.0055 00028 | 1.0000 15125 |
| .0056  | .0055 99971  | .9999 84320  | .0056 00029  | .0000 15680  |
| .0057  | .0056 99969  | .9999 83755  | .0057 00031  | .0000 16245  |
| .0058  | .0057 99967  | .9999 83180  | .0058 00033  | .0000 16820  |
| .0059  | .0058 99966  | .9999 82595  | .0059 00034  | .0000 17405  |
| 0.0060 | 0.0059 99964 | 0.9999 82000 | 0.0060 00036 | 1.0000 18000 |
| .0061  | .0060 99962  | .9999 81395  | .0061 00038  | .0000 18605  |
| .0062  | .0061 99960  | .9999 80780  | .0062 00040  | .0000 19220  |
| .0063  | .0062 99958  | .9999 80155  | .0063 00042  | .0000 19845  |
| .0064  | .0063 99956  | .9999 79520  | .0064 00044  | .0000 20480  |
| 0.0065 | 0.0064 99954 | 0.9999 78875 | 0.0065 00046 | 1.0000 21125 |
| .0066  | .0065 99952  | .9999 78220  | .0066 00048  | .0000 21780  |
| .0067  | .0066 99950  | .9999 77555  | .0067 00050  | .0000 22445  |
| .0068  | .0067 99948  | .9999 76880  | .0068 00052  | .0000 23120  |
| .0069  | .0068 99945  | .9999 76195  | .0069 00055  | .0000 23805  |
| 0.0070 | 0.0069 99943 | 0.9999 75500 | 0.0070 00057 | 1.0000 24500 |
| .0071  | .0070 99940  | .9999 74795  | .0071 00060  | .0000 25205  |
| .0072  | .0071 99938  | .9999 74080  | .0072 00062  | .0000 25920  |
| .0073  | .0072 99935  | .9999 73355  | .0073 00065  | .0000 26645  |
| .0074  | .0073 99932  | .9999 72620  | .0074 00068  | .0000 27380  |
| 0.0075 | 0.0074 99930 | 0.9999 71875 | 0.0075 00070 | 1.0000 28125 |
| .0076  | .0075 99927  | .9999 71120  | .0076 00073  | .0000 28880  |
| .0077  | .0076 99924  | .9999 70355  | .0077 00076  | .0000 29645  |
| .0078  | .0077 99921  | .9999 69580  | .0078 00079  | .0000 30420  |
| .0079  | .0078 99918  | .9999 68795  | .0079 00082  | .0000 31205  |
| 0.0080 | 0.0079 99915 | 0.9999 68000 | 0.0080 00085 | 1.0000 32000 |
| .0081  | .0080 99911  | .9999 67195  | .0081 00089  | .0000 32805  |
| .0082  | .0081 99908  | .9999 66380  | .0082 00092  | .0000 33620  |
| .0083  | .0082 99905  | .9999 65555  | .0083 00095  | .0000 34445  |
| .0084  | .0083 99901  | .9999 64720  | .0084 00099  | .0000 35280  |
| 0.0085 | 0.0084 99898 | 0.9999 63875 | 0.0085 00102 | 1.0000 36125 |
| .0086  | .0085 99894  | .9999 63020  | .0086 00106  | .0000 36980  |
| .0087  | .0086 99890  | .9999 62155  | .0087 00110  | .0000 37845  |
| .0088  | .0087 99886  | .9999 61280  | .0088 00114  | .0000 38720  |
| .0089  | .0088 99883  | .9999 60395  | .0089 00117  | .0000 39605  |
| 0.0090 | 0.0089 99879 | 0.9999 59500 | 0.0090 00122 | 1.0000 40500 |
| .0091  | .0090 99874  | .9999 58595  | .0091 00126  | .0000 41405  |
| .0092  | .0091 99870  | .9999 57680  | .0092 00130  | .0000 42320  |
| .0093  | .0092 99866  | .9999 56755  | .0093 00134  | .0000 43245  |
| .0094  | .0093 99862  | .9999 55820  | .0094 00138  | .0000 44180  |
| 0.0095 | 0.0094 99857 | 0.9999 54875 | 0.0095 00143 | 1.0000 45125 |
| .0096  | .0095 99853  | .9999 53920  | .0096 00147  | .0000 46080  |
| .0097  | .0096 99848  | .9999 52955  | .0097 00152  | .0000 47045  |
| .0098  | .0097 99843  | .9999 51980  | .0098 00157  | .0000 48020  |
| .0099  | .0098 99838  | .9999 50995  | .0099 00162  | .0000 49005  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.0100 | 0.0099 99833 | 0.9999 50000 | 0.0100 00167 | 1.0000 50000 |
| .0101  | .0100 99828  | .9999 48995  | .0101 00172  | .0000 51005  |
| .0102  | .0101 99823  | .9999 47980  | .0102 00177  | .0000 52020  |
| .0103  | .0102 99818  | .9999 46955  | .0103 00182  | .0000 53045  |
| .0104  | .0103 99813  | .9999 45920  | .0104 00187  | .0000 54080  |
| 0.0105 | 0.0104 99807 | 0.9999 44876 | 0.0105 00193 | 1.0000 55126 |
| .0106  | .0105 99801  | .9999 43821  | .0106 00199  | .0000 56181  |
| .0107  | .0106 99796  | .9999 42756  | .0107 00204  | .0000 57246  |
| .0108  | .0107 99790  | .9999 41681  | .0108 00210  | .0000 58321  |
| .0109  | .0108 99784  | .9999 40596  | .0109 00216  | .0000 59406  |
| 0.0110 | 0.0109 99778 | 0.9999 39501 | 0.0110 00222 | 1.0000 60501 |
| .0111  | .0110 99772  | .9999 38396  | .0111 00228  | .0000 61606  |
| .0112  | .0111 99766  | .9999 37281  | .0112 00234  | .0000 62721  |
| .0113  | .0112 99760  | .9999 36156  | .0113 00240  | .0000 63846  |
| .0114  | .0113 99755  | .9999 35021  | .0114 00247  | .0000 64981  |
| 0.0115 | 0.0114 99747 | 0.9999 33876 | 0.0115 00253 | 1.0000 66126 |
| .0116  | .0115 99740  | .9999 32721  | .0116 00260  | .0000 67281  |
| .0117  | .0116 99733  | .9999 31556  | .0117 00267  | .0000 68446  |
| .0118  | .0117 99726  | .9999 30381  | .0118 00274  | .0000 69621  |
| .0119  | .0118 99719  | .9999 29196  | .0119 00281  | .0000 70806  |
| 0.0120 | 0.0119 99712 | 0.9999 28001 | 0.0120 00288 | 1.0000 72001 |
| .0121  | .0120 99705  | .9999 26796  | .0121 00295  | .0000 73206  |
| .0122  | .0121 99697  | .9999 25581  | .0122 00303  | .0000 74421  |
| .0123  | .0122 99690  | .9999 24356  | .0123 00310  | .0000 75646  |
| .0124  | .0123 99682  | .9999 23121  | .0124 00318  | .0000 76881  |
| 0.0125 | 0.0124 99674 | 0.9999 21876 | 0.0125 00326 | 1.0000 78126 |
| .0126  | .0125 99667  | .9999 20621  | .0126 00333  | .0000 79381  |
| .0127  | .0126 99659  | .9999 19356  | .0127 00341  | .0000 80646  |
| .0128  | .0127 99650  | .9999 18081  | .0128 00350  | .0000 81921  |
| .0129  | .0128 99642  | .9999 16796  | .0129 00358  | .0000 83206  |
| 0.0130 | 0.0129 99634 | 0.9999 15501 | 0.0130 00366 | 1.0000 84501 |
| .0131  | .0130 99625  | .9999 14196  | .0131 00375  | .0000 85806  |
| .0132  | .0131 99617  | .9999 12881  | .0132 00383  | .0000 87121  |
| .0133  | .0132 99608  | .9999 11556  | .0133 00392  | .0000 88446  |
| .0134  | .0133 99599  | .9999 10221  | .0134 00401  | .0000 89781  |
| 0.0135 | 0.0134 99590 | 0.9999 08876 | 0.0135 00410 | 1.0000 91126 |
| .0136  | .0135 99581  | .9999 07521  | .0136 00419  | .0000 92481  |
| .0137  | .0136 99571  | .9999 06156  | .0137 00429  | .0000 93846  |
| .0138  | .0137 99562  | .9999 04782  | .0138 00438  | .0000 95222  |
| .0139  | .0138 99552  | .9999 03397  | .0139 00448  | .0000 96607  |
| 0.0140 | 0.0139 99543 | 0.9999 02002 | 0.0140 00457 | 1.0000 98002 |
| .0141  | .0140 99533  | .9999 00597  | .0141 00467  | .0000 99407  |
| .0142  | .0141 99523  | .9998 99182  | .0142 00477  | .0001 00822  |
| .0143  | .0142 99513  | .9998 97757  | .0143 00487  | .0001 02247  |
| .0144  | .0143 99502  | .9998 96322  | .0144 00498  | .0001 03682  |
| 0.0145 | 0.0144 99492 | 0.9998 94877 | 0.0145 00508 | 1.0001 05127 |
| .0146  | .0145 99481  | .9998 93422  | .0146 00519  | .0001 06582  |
| .0147  | .0146 99471  | .9998 91957  | .0147 00529  | .0001 08047  |
| .0148  | .0147 99460  | .9998 90482  | .0148 00540  | .0001 09522  |
| .0149  | .0148 99449  | .9998 88997  | .0149 00551  | .0001 11007  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.0150 | 0.0149 99438 | 0.9998 87502 | 0.0150 00563 | 1.0001 12502 |
| .0151  | .0150 99426  | .9998 85997  | .0151 00574  | .0001 14007  |
| .0152  | .0151 99415  | .9998 84482  | .0152 00585  | .0001 15522  |
| .0153  | .0152 99403  | .9998 82957  | .0153 00597  | .0001 17047  |
| .0154  | .0153 99391  | .9998 81422  | .0154 00609  | .0001 18582  |
| 0.0155 | 0.0154 99379 | 0.9998 79877 | 0.0155 00621 | 1.0001 20127 |
| .0156  | .0155 99367  | .9998 78322  | .0156 00633  | .0001 21682  |
| .0157  | .0156 99355  | .9998 76758  | .0157 00645  | .0001 23248  |
| .0158  | .0157 99343  | .9998 75183  | .0158 00657  | .0001 24823  |
| .0159  | .0158 99330  | .9998 73598  | .0159 00670  | .0001 26408  |
| 0.0160 | 0.0159 99317 | 0.9998 72003 | 0.0160 00683 | 1.0001 28003 |
| .0161  | .0160 99304  | .9998 70398  | .0161 00696  | .0001 29608  |
| .0162  | .0161 99291  | .9998 68783  | .0162 00709  | .0001 31223  |
| .0163  | .0162 99278  | .9998 67158  | .0163 00722  | .0001 32848  |
| .0164  | .0163 99265  | .9998 65523  | .0164 00735  | .0001 34483  |
| 0.0165 | 0.0164 99251 | 0.9998 63878 | 0.0165 00749 | 1.0001 36128 |
| .0166  | .0165 99238  | .9998 62223  | .0166 00762  | .0001 37783  |
| .0167  | .0166 99224  | .9998 60558  | .0167 00776  | .0001 39448  |
| .0168  | .0167 99210  | .9998 58883  | .0168 00790  | .0001 41123  |
| .0169  | .0168 99196  | .9998 57198  | .0169 00804  | .0001 42808  |
| 0.0170 | 0.0169 99181 | 0.9998 55503 | 0.0170 00819 | 1.0001 44503 |
| .0171  | .0170 99167  | .9998 53799  | .0171 00833  | .0001 46209  |
| .0172  | .0171 99152  | .9998 52084  | .0172 00848  | .0001 47924  |
| .0173  | .0172 99137  | .9998 50359  | .0173 00863  | .0001 49649  |
| .0174  | .0173 99122  | .9998 48624  | .0174 00878  | .0001 51384  |
| 0.0175 | 0.0174 99107 | 0.9998 46879 | 0.0175 00893 | 1.0001 53129 |
| .0176  | .0175 99091  | .9998 45124  | .0176 00909  | .0001 54884  |
| .0177  | .0176 99076  | .9998 43359  | .0177 00924  | .0001 56649  |
| .0178  | .0177 99060  | .9998 41584  | .0178 00940  | .0001 58424  |
| .0179  | .0178 99044  | .9998 39799  | .0179 00956  | .0001 60209  |
| 0.0180 | 0.0179 99028 | 0.9998 38004 | 0.0180 00972 | 1.0001 62004 |
| .0181  | .0180 99012  | .9998 36199  | .0181 00988  | .0001 63809  |
| .0182  | .0181 98995  | .9998 34385  | .0182 01005  | .0001 65625  |
| .0183  | .0182 98979  | .9998 32560  | .0183 01021  | .0001 67450  |
| .0184  | .0183 98962  | .9998 30725  | .0184 01038  | .0001 69285  |
| 0.0185 | 0.0184 98945 | 0.9998 28880 | 0.0185 01055 | 1.0001 71130 |
| .0186  | .0185 98928  | .9998 27025  | .0186 01072  | .0001 72985  |
| .0187  | .0186 98910  | .9998 25160  | .0187 01090  | .0001 74850  |
| .0188  | .0187 98893  | .9998 23285  | .0188 01107  | .0001 76725  |
| .0189  | .0188 98875  | .9998 21400  | .0189 01125  | .0001 78610  |
| 0.0190 | 0.0189 98857 | 0.9998 19505 | 0.0190 01143 | 1.0001 80505 |
| .0191  | .0190 98839  | .9998 17601  | .0191 01161  | .0001 82411  |
| .0192  | .0191 98820  | .9998 15686  | .0192 01180  | .0001 84326  |
| .0193  | .0192 98802  | .9998 13761  | .0193 01198  | .0001 86251  |
| .0194  | .0193 98783  | .9998 11826  | .0194 01217  | .0001 88186  |
| 0.0195 | 0.0194 98764 | 0.9998 09881 | 0.0195 01236 | 1.0001 90131 |
| .0196  | .0195 98745  | .9998 07926  | .0196 01255  | .0001 92086  |
| .0197  | .0196 98726  | .9998 05961  | .0197 01274  | .0001 94051  |
| .0198  | .0197 98706  | .9998 03986  | .0198 01294  | .0001 96026  |
| .0199  | .0198 98687  | .9998 02002  | .0199 01313  | .0001 98012  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.0200 | 0.0199 98667 | 0.9998 00007 | 0.0200 01333 | 1.0002 00007 |
| .0201  | .0200 98647  | .9997 98002  | .0201 01353  | .0002 02012  |
| .0202  | .0201 98626  | .9997 95987  | .0202 01374  | .0002 04027  |
| .0203  | .0202 98606  | .9997 93962  | .0203 01394  | .0002 06052  |
| .0204  | .0203 98585  | .9997 91927  | .0204 01415  | .0002 08087  |
| 0.0205 | 0.0204 98564 | 0.9997 89882 | 0.0205 01436 | 1.0002 10132 |
| .0206  | .0205 98543  | .9997 87828  | .0206 01457  | .0002 12188  |
| .0207  | .0206 98522  | .9997 85783  | .0207 01478  | .0002 14253  |
| .0208  | .0207 98500  | .9997 83688  | .0208 01500  | .0002 16328  |
| .0209  | .0208 98478  | .9997 81603  | .0209 01522  | .0002 18413  |
| 0.0210 | 0.0209 98457 | 0.9997 79508 | 0.0210 01544 | 1.0002 20508 |
| .0211  | .0210 98434  | .9997 77403  | .0211 01566  | .0002 22613  |
| .0212  | .0211 98412  | .9997 75288  | .0212 01588  | .0002 24728  |
| .0213  | .0212 98389  | .9997 73164  | .0213 01611  | .0002 26854  |
| .0214  | .0213 98367  | .9997 71029  | .0214 01633  | .0002 28989  |
| 0.0215 | 0.0214 98344 | 0.9997 68884 | 0.0215 01656 | 1.0002 31134 |
| .0216  | .0215 98320  | .9997 66729  | .0216 01680  | .0002 33289  |
| .0217  | .0216 98297  | .9997 64564  | .0217 01703  | .0002 35454  |
| .0218  | .0217 98273  | .9997 62389  | .0218 01727  | .0002 37629  |
| .0219  | .0218 98249  | .9997 60205  | .0219 01751  | .0002 39815  |
| 0.0220 | 0.0219 98225 | 0.9997 58010 | 0.0220 01775 | 1.0002 42010 |
| .0221  | .0220 98201  | .9997 55805  | .0221 01799  | .0002 44215  |
| .0222  | .0221 98177  | .9997 53590  | .0222 01824  | .0002 46430  |
| .0223  | .0222 98152  | .9997 51365  | .0223 01848  | .0002 48655  |
| .0224  | .0223 98127  | .9997 49130  | .0224 01873  | .0002 50890  |
| 0.0225 | 0.0224 98102 | 0.9997 46886 | 0.0225 01898 | 1.0002 53136 |
| .0226  | .0225 98076  | .9997 44631  | .0226 01924  | .0002 55391  |
| .0227  | .0226 98051  | .9997 42366  | .0227 01950  | .0002 57656  |
| .0228  | .0227 98025  | .9997 40091  | .0228 01975  | .0002 59931  |
| .0229  | .0228 97999  | .9997 37806  | .0229 02002  | .0002 62216  |
| 0.0230 | 0.0229 97972 | 0.9997 35512 | 0.0230 02028 | 1.0002 64512 |
| .0231  | .0230 97946  | .9997 33207  | .0231 02054  | .0002 66817  |
| .0232  | .0231 97919  | .9997 30892  | .0232 02081  | .0002 69132  |
| .0233  | .0232 97892  | .9997 28567  | .0233 02108  | .0002 71457  |
| .0234  | .0233 97865  | .9997 26232  | .0234 02136  | .0002 73792  |
| 0.0235 | 0.0234 97837 | 0.9997 23888 | 0.0235 02163 | 1.0002 76138 |
| .0236  | .0235 97809  | .9997 21533  | .0236 02191  | .0002 78493  |
| .0237  | .0236 97781  | .9997 19168  | .0237 02219  | .0002 80858  |
| .0238  | .0237 97753  | .9997 16793  | .0238 02247  | .0002 83233  |
| .0239  | .0238 97725  | .9997 14409  | .0239 02275  | .0002 85619  |
| 0.0240 | 0.0239 97696 | 0.9997 12014 | 0.0240 02304 | 1.0002 88014 |
| .0241  | .0240 97667  | .9997 09609  | .0241 02333  | .0002 90419  |
| .0242  | .0241 97638  | .9997 07194  | .0242 02362  | .0002 92834  |
| .0243  | .0242 97609  | .9997 04770  | .0243 02392  | .0002 95260  |
| .0244  | .0243 97579  | .9997 02335  | .0244 02421  | .0002 97695  |
| 0.0245 | 0.0244 97549 | 0.9996 99890 | 0.0245 02451 | 1.0003 00140 |
| .0246  | .0245 97519  | .9996 97435  | .0246 02481  | .0003 02595  |
| .0247  | .0246 97489  | .9996 94971  | .0247 02512  | .0003 05061  |
| .0248  | .0247 97458  | .9996 92496  | .0248 02542  | .0003 07536  |
| .0249  | .0248 97427  | .9996 90011  | .0249 02573  | .0003 10021  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.0250 | 0.0249 97396 | 0.9996 87516 | 0.0250 02604 | 1.0003 12516 |
| .0251  | .0250 97365  | .9996 85012  | .0251 02636  | .0003 15022  |
| .0252  | .0251 97333  | .9996 82497  | .0252 02667  | .0003 17537  |
| .0253  | .0252 97301  | .9996 79972  | .0253 02699  | .0003 20062  |
| .0254  | .0253 97269  | .9996 77437  | .0254 02731  | .0003 22597  |
| 0.0255 | 0.0254 97237 | 0.9996 74893 | 0.0255 02764 | 1.0003 25143 |
| .0256  | .0255 97204  | .9996 72332  | .0256 02796  | .0003 27698  |
| .0257  | .0256 97171  | .9996 69773  | .0257 02829  | .0003 30263  |
| .0258  | .0257 97138  | .9996 67198  | .0258 02862  | .0003 32838  |
| .0259  | .0258 97104  | .9996 64614  | .0259 02896  | .0003 35424  |
| 0.0260 | 0.0259 97071 | 0.9996 62019 | 0.0260 02929 | 1.0003 38019 |
| .0261  | .0260 97037  | .9996 59414  | .0261 02963  | .0003 40624  |
| .0262  | .0261 97003  | .9996 56800  | .0262 02998  | .0003 43240  |
| .0263  | .0262 96968  | .9996 54175  | .0263 03032  | .0003 45865  |
| .0264  | .0263 96933  | .9996 51540  | .0264 03067  | .0003 48500  |
| 0.0265 | 0.0264 96899 | 0.9996 48896 | 0.0265 03102 | 1.0003 51146 |
| .0266  | .0265 96863  | .9996 46241  | .0266 03137  | .0003 53801  |
| .0267  | .0266 96828  | .9996 43576  | .0267 03172  | .0003 56466  |
| .0268  | .0267 96792  | .9996 40901  | .0268 03208  | .0003 59141  |
| .0269  | .0268 96756  | .9996 38217  | .0269 03244  | .0003 61827  |
| 0.0270 | 0.0269 96720 | 0.9996 35522 | 0.0270 03281 | 1.0003 64522 |
| .0271  | .0270 96683  | .9996 32817  | .0271 03317  | .0003 67227  |
| .0272  | .0271 96646  | .9996 30103  | .0272 03354  | .0003 69943  |
| .0273  | .0272 96609  | .9996 27378  | .0273 03391  | .0003 72668  |
| .0274  | .0273 96572  | .9996 24643  | .0274 03429  | .0003 75403  |
| 0.0275 | 0.0274 96534 | 0.9996 21899 | 0.0275 03466 | 1.0003 78149 |
| .0276  | .0275 96496  | .9996 19144  | .0276 03504  | .0003 80904  |
| .0277  | .0276 96458  | .9996 16380  | .0277 03542  | .0003 83670  |
| .0278  | .0277 96419  | .9996 13605  | .0278 03581  | .0003 86445  |
| .0279  | .0278 96381  | .9996 10820  | .0279 03620  | .0003 89230  |
| 0.0280 | 0.0279 96341 | 0.9996 08026 | 0.0280 03659 | 1.0003 92026 |
| .0281  | .0280 96302  | .9996 05221  | .0281 03698  | .0003 94831  |
| .0282  | .0281 96263  | .9996 02406  | .0282 03738  | .0003 97646  |
| .0283  | .0282 96223  | .9995 99582  | .0283 03778  | .0004 00472  |
| .0284  | .0283 96182  | .9995 96747  | .0284 03818  | .0004 03307  |
| 0.0285 | 0.0284 96142 | 0.9995 93902 | 0.0285 03858 | 1.0004 06152 |
| .0286  | .0285 96101  | .9995 91048  | .0286 03899  | .0004 09008  |
| .0287  | .0286 96060  | .9995 88183  | .0287 03940  | .0004 11873  |
| .0288  | .0287 96019  | .9995 85309  | .0288 03981  | .0004 14749  |
| .0289  | .0288 95977  | .9995 82424  | .0289 04023  | .0004 17634  |
| 0.0290 | 0.0289 95935 | 0.9995 79529 | 0.0290 04065 | 1.0004 20529 |
| .0291  | .0290 95893  | .9995 76625  | .0291 04107  | .0004 23435  |
| .0292  | .0291 95851  | .9995 73710  | .0292 04150  | .0004 26350  |
| .0293  | .0292 95808  | .9995 70786  | .0293 04192  | .0004 29276  |
| .0294  | .0293 95765  | .9995 67851  | .0294 04236  | .0004 32211  |
| 0.0295 | 0.0294 95721 | 0.9995 64907 | 0.0295 04279 | 1.0004 35157 |
| .0296  | .0295 95678  | .9995 61952  | .0296 04323  | .0004 38112  |
| .0297  | .0296 95634  | .9995 58987  | .0297 04367  | .0004 41077  |
| .0298  | .0297 95590  | .9995 56013  | .0298 04411  | .0004 44053  |
| .0299  | .0298 95545  | .9995 53028  | .0299 04455  | .0004 47038  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.0300 | 0.0299 95500 | 0.9995 50034 | 0.0300 04500 | 1.0004 50034 |
| .0301  | .0300 95455  | .9995 47029  | .0301 04545  | .0004 53039  |
| .0302  | .0301 95410  | .9995 44015  | .0302 04591  | .0004 56055  |
| .0303  | .0302 95364  | .9995 40990  | .0303 04637  | .0004 59080  |
| .0304  | .0303 95318  | .9995 37956  | .0304 04683  | .0004 62116  |
| 0.0305 | 0.0304 95271 | 0.9995 34911 | 0.0305 04729 | 1.0004 65161 |
| .0306  | .0305 95225  | .9995 31857  | .0306 04776  | .0004 68217  |
| .0307  | .0306 95178  | .9995 28792  | .0307 04823  | .0004 71282  |
| .0308  | .0307 95131  | .9995 25717  | .0308 04870  | .0004 74357  |
| .0309  | .0308 95083  | .9995 22633  | .0309 04918  | .0004 77443  |
| 0.0310 | 0.0309 95035 | 0.9995 19538 | 0.0310 04965 | 1.0004 80538 |
| .0311  | .0310 94987  | .9995 16434  | .0311 05014  | .0004 83644  |
| .0312  | .0311 94938  | .9995 13319  | .0312 05062  | .0004 86759  |
| .0313  | .0312 94890  | .9995 10195  | .0313 05111  | .0004 89885  |
| .0314  | .0313 94840  | .9995 07061  | .0314 05160  | .0004 93021  |
| 0.0315 | 0.0314 94791 | 0.9995 03916 | 0.0315 05210 | 1.0004 96166 |
| .0316  | .0315 94741  | .9995 00762  | .0316 05259  | .0004 99322  |
| .0317  | .0316 94691  | .9994 97597  | .0317 05309  | .0005 02487  |
| .0318  | .0317 94641  | .9994 94423  | .0318 05360  | .0005 05663  |
| .0319  | .0318 94590  | .9994 91238  | .0319 05411  | .0005 08848  |
| 0.0320 | 0.0319 94539 | 0.9994 88044 | 0.0320 05462 | 1.0005 12044 |
| .0321  | .0320 94488  | .9994 84839  | .0321 05513  | .0005 15249  |
| .0322  | .0321 94436  | .9994 81625  | .0322 05565  | .0005 18465  |
| .0323  | .0322 94384  | .9994 78400  | .0323 05617  | .0005 21690  |
| .0324  | .0323 94332  | .9994 75166  | .0324 05669  | .0005 24926  |
| 0.0325 | 0.0324 94279 | 0.9994 71921 | 0.0325 05722 | 1.0005 28171 |
| .0326  | .0325 94226  | .9994 68667  | .0326 05775  | .0005 31427  |
| .0327  | .0326 94173  | .9994 65403  | .0327 05828  | .0005 34693  |
| .0328  | .0327 94119  | .9994 62128  | .0328 05882  | .0005 37968  |
| .0329  | .0328 94065  | .9994 58844  | .0329 05936  | .0005 41254  |
| 0.0330 | 0.0329 94011 | 0.9994 55549 | 0.0330 05990 | 1.0005 44549 |
| .0331  | .0330 93956  | .9994 52245  | .0331 06044  | .0005 47855  |
| .0332  | .0331 93901  | .9994 48931  | .0332 06099  | .0005 51171  |
| .0333  | .0332 93846  | .9994 45606  | .0333 06155  | .0005 54496  |
| .0334  | .0333 93790  | .9994 42272  | .0334 06210  | .0005 57832  |
| 0.0335 | 0.0334 93734 | 0.9994 38927 | 0.0335 06266 | 1.0005 61177 |
| .0336  | .0335 93678  | .9994 35573  | .0336 06323  | .0005 64533  |
| .0337  | .0336 93622  | .9994 32209  | .0337 06379  | .0005 67899  |
| .0338  | .0337 93565  | .9994 28834  | .0338 06436  | .0005 71274  |
| .0339  | .0338 93507  | .9994 25450  | .0339 06493  | .0005 74660  |
| 0.0340 | 0.0339 93450 | 0.9994 22056 | 0.0340 06551 | 1.0005 78056 |
| .0341  | .0340 93392  | .9994 18651  | .0341 06609  | .0005 81461  |
| .0342  | .0341 93333  | .9994 15237  | .0342 06667  | .0005 84877  |
| .0343  | .0342 93275  | .9994 11813  | .0343 06726  | .0005 88303  |
| .0344  | .0343 93216  | .9994 08378  | .0344 06785  | .0005 91738  |
| 0.0345 | 0.0344 93156 | 0.9994 04934 | 0.0345 06844 | 1.0005 95184 |
| .0346  | .0345 93097  | .9994 01480  | .0346 06904  | .0005 98640  |
| .0347  | .0346 93037  | .9993 98015  | .0347 06964  | .0006 02105  |
| .0348  | .0347 92976  | .9993 94541  | .0348 07024  | .0006 05581  |
| .0349  | .0348 92916  | .9993 91057  | .0349 07085  | .0006 09067  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.0350 | 0.0349 92855 | 0.9993 87563 | 0.0350 07146 | 1.0006 12563 |
| .0351  | .0350 92793  | .9993 84058  | .0351 07208  | .0006 18063  |
| .0352  | .0351 92731  | .9993 80544  | .0352 07269  | .0006 19534  |
| .0353  | .0352 92669  | .9993 77020  | .0353 07332  | .0006 23110  |
| .0354  | .0353 92607  | .9993 73485  | .0354 07394  | .0006 26645  |
| 0.0355 | 0.0354 92544 | 0.9993 69941 | 0.0355 07457 | 1.0006 30191 |
| .0356  | .0355 92481  | .9993 66387  | .0356 07520  | .0006 33747  |
| .0357  | .0356 92417  | .9993 62823  | .0357 07584  | .0006 37313  |
| .0358  | .0357 92353  | .9993 59248  | .0358 07648  | .0006 40888  |
| .0359  | .0358 92289  | .9993 55664  | .0359 07712  | .0006 44474  |
| 0.0360 | 0.0359 92225 | 0.9993 52070 | 0.0360 07777 | 1.0006 48070 |
| .0361  | .0360 92160  | .9993 48466  | .0361 07841  | .0006 51676  |
| .0362  | .0361 92094  | .9993 44852  | .0362 07907  | .0006 55292  |
| .0363  | .0362 92029  | .9993 41227  | .0363 07973  | .0006 58917  |
| .0364  | .0363 91962  | .9993 37593  | .0364 08039  | .0006 62553  |
| 0.0365 | 0.0364 91896 | 0.9993 33949 | 0.0365 08105 | 1.0006 66199 |
| .0366  | .0365 91829  | .9993 30295  | .0366 08172  | .0006 69855  |
| .0367  | .0366 91762  | .9993 26631  | .0367 08239  | .0006 73521  |
| .0368  | .0367 91695  | .9993 22956  | .0368 08307  | .0006 77196  |
| .0369  | .0368 91627  | .9993 19272  | .0369 08374  | .0006 80882  |
| 0.0370 | 0.0369 91558 | 0.9993 15578 | 0.0370 08443 | 1.0006 84578 |
| .0371  | .0370 91490  | .9993 11874  | .0371 08511  | .0006 88284  |
| .0372  | .0371 91421  | .9993 08160  | .0372 08580  | .0006 92000  |
| .0373  | .0372 91351  | .9993 04436  | .0373 08650  | .0006 95726  |
| .0374  | .0373 91282  | .9993 00702  | .0374 08720  | .0006 99462  |
| 0.0375 | 0.0374 91212 | 0.9992 96957 | 0.0375 08790 | 1.0007 03207 |
| .0376  | .0375 91141  | .9992 93203  | .0376 08860  | .0007 06963  |
| .0377  | .0376 91070  | .9992 89439  | .0377 08931  | .0007 10729  |
| .0378  | .0377 90999  | .9992 85665  | .0378 09002  | .0007 14505  |
| .0379  | .0378 90927  | .9992 81881  | .0379 09074  | .0007 18291  |
| 0.0380 | 0.0379 90855 | 0.9992 78087 | 0.0380 09146 | 1.0007 22087 |
| .0381  | .0380 90783  | .9992 74283  | .0381 09218  | .0007 25893  |
| .0382  | .0381 90710  | .9992 70469  | .0382 09291  | .0007 29709  |
| .0383  | .0382 90637  | .9992 66645  | .0383 09364  | .0007 33535  |
| .0384  | .0383 90564  | .9992 62811  | .0384 09438  | .0007 37371  |
| 0.0385 | 0.0384 90490 | 0.9992 58967 | 0.0385 09512 | 1.0007 41217 |
| .0386  | .0385 90415  | .9992 55112  | .0386 09586  | .0007 45073  |
| .0387  | .0386 90341  | .9992 51248  | .0387 09661  | .0007 48938  |
| .0388  | .0387 90266  | .9992 47374  | .0388 09736  | .0007 52814  |
| .0389  | .0388 90190  | .9992 43490  | .0389 09811  | .0007 56700  |
| 0.0390 | 0.0389 90114 | 0.9992 39596 | 0.0390 09887 | 1.0007 60596 |
| .0391  | .0390 90038  | .9992 35692  | .0391 09964  | .0007 64502  |
| .0392  | .0391 89961  | .9992 31778  | .0392 10040  | .0007 68418  |
| .0393  | .0392 89884  | .9992 27854  | .0393 10117  | .0007 72344  |
| .0394  | .0393 89807  | .9992 23920  | .0394 10195  | .0007 76280  |
| 0.0395 | 0.0394 89729 | 0.9992 19976 | 0.0395 10272 | 1.0007 80226 |
| .0396  | .0395 89651  | .9992 16022  | .0396 10351  | .0007 84182  |
| .0397  | .0396 89572  | .9992 12058  | .0397 10429  | .0007 88149  |
| .0398  | .0397 89493  | .9992 08085  | .0398 10508  | .0007 92125  |
| .0399  | .0398 89414  | .9992 04101  | .0399 10588  | .0007 96111  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.0400 | 0.0399 89334 | 0.9992 00107 | 0.0400 10668 | 1.0008 00107 |
| .0401  | .0400 89254  | .9991 96103  | .0401 10748  | .0008 04113  |
| .0402  | .0401 89173  | .9991 92089  | .0402 10828  | .0008 08129  |
| .0403  | .0402 89092  | .9991 88065  | .0403 10909  | .0008 12155  |
| .0404  | .0403 89011  | .9991 84031  | .0404 10991  | .0008 16191  |
| 0.0405 | 0.0404 88929 | 0.9991 79987 | 0.0405 11073 | 1.0008 20237 |
| .0406  | .0405 88847  | .9991 75933  | .0406 11155  | .0008 24293  |
| .0407  | .0406 88764  | .9991 71869  | .0407 11237  | .0008 28359  |
| .0408  | .0407 88681  | .9991 67795  | .0408 11320  | .0008 32435  |
| .0409  | .0408 88598  | .9991 63712  | .0409 11404  | .0008 36522  |
| 0.0410 | 0.0409 88514 | 0.9991 59618 | 0.0410 11488 | 1.0008 40618 |
| .0411  | .0410 88430  | .9991 55514  | .0411 11572  | .0008 44724  |
| .0412  | .0411 88345  | .9991 51400  | .0412 11657  | .0008 48840  |
| .0413  | .0412 88260  | .9991 47276  | .0413 11742  | .0008 52966  |
| .0414  | .0413 88175  | .9991 43142  | .0414 11827  | .0008 57102  |
| 0.0415 | 0.0414 88089 | 0.9991 38999 | 0.0415 11913 | 1.0008 61249 |
| .0416  | .0415 88002  | .9991 34845  | .0416 12000  | .0008 65405  |
| .0417  | .0416 87916  | .9991 30681  | .0417 12086  | .0008 69571  |
| .0418  | .0417 87829  | .9991 26507  | .0418 12174  | .0008 73747  |
| .0419  | .0418 87741  | .9991 22323  | .0419 12261  | .0008 77933  |
| 0.0420 | 0.0419 87653 | 0.9991 18130 | 0.0420 12349 | 1.0008 82130 |
| .0421  | .0420 87565  | .9991 13926  | .0421 12438  | .0008 86336  |
| .0422  | .0421 87476  | .9991 09712  | .0422 12526  | .0008 90552  |
| .0423  | .0422 87387  | .9991 05488  | .0423 12616  | .0008 94778  |
| .0424  | .0423 87297  | .9991 01255  | .0424 12705  | .0008 99015  |
| 0.0425 | 0.0424 87207 | 0.9990 97011 | 0.0425 12795 | 1.0009 03261 |
| .0426  | .0425 87116  | .9990 92757  | .0426 12886  | .0009 07517  |
| .0427  | .0426 87025  | .9990 88494  | .0427 12977  | .0009 11784  |
| .0428  | .0427 86934  | .9990 84220  | .0428 13068  | .0009 16060  |
| .0429  | .0428 86842  | .9990 79936  | .0429 13160  | .0009 20346  |
| 0.0430 | 0.0429 86750 | 0.9990 75642 | 0.0430 13252 | 1.0009 24642 |
| .0431  | .0430 86657  | .9990 71339  | .0431 13345  | .0009 28949  |
| .0432  | .0431 86564  | .9990 67025  | .0432 13438  | .0009 33265  |
| .0433  | .0432 86471  | .9990 62701  | .0433 13532  | .0009 37591  |
| .0434  | .0433 86377  | .9990 58368  | .0434 13626  | .0009 41928  |
| 0.0435 | 0.0434 86282 | 0.9990 54024 | 0.0435 13720 | 1.0009 46274 |
| .0436  | .0435 86188  | .9990 49671  | .0436 13815  | .0009 50631  |
| .0437  | .0436 86092  | .9990 45307  | .0437 13910  | .0009 54997  |
| .0438  | .0437 85997  | .9990 40933  | .0438 14006  | .0009 59373  |
| .0439  | .0438 85901  | .9990 36550  | .0439 14102  | .0009 63760  |
| 0.0440 | 0.0439 85804 | 0.9990 32156 | 0.0440 14199 | 1.0009 68156 |
| .0441  | .0440 85707  | .9990 27753  | .0441 14296  | .0009 72563  |
| .0442  | .0441 85610  | .9990 23339  | .0442 14393  | .0009 76979  |
| .0443  | .0442 85512  | .9990 18915  | .0443 14491  | .0009 81405  |
| .0444  | .0443 85413  | .9990 14482  | .0444 14590  | .0009 85842  |
| 0.0445 | 0.0444 85315 | 0.9990 10038 | 0.0445 14688 | 1.0009 90288 |
| .0446  | .0445 85215  | .9990 05585  | .0446 14788  | .0009 94745  |
| .0447  | .0446 85116  | .9990 01121  | .0447 14887  | .0009 99211  |
| .0448  | .0447 85016  | .9989 96648  | .0448 14987  | .0010 03688  |
| .0449  | .0448 84915  | .9989 92164  | .0449 15088  | .0010 08174  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.0450 | 0.0449 84814 | 0.9989 87671 | 0.0450 15189 | 1.0010 12671 |
| .0451  | .0450 84713  | .9989 83167  | .0451 15291  | .0010 17177  |
| .0452  | .0451 84611  | .9989 78654  | .0452 15392  | .0010 21694  |
| .0453  | .0452 84508  | .9989 74130  | .0453 15495  | .0010 26220  |
| .0454  | .0453 84405  | .9989 69597  | .0454 15598  | .0010 30757  |
| 0.0455 | 0.0454 84302 | 0.9989 65054 | 0.0455 15701 | 1.0010 35304 |
| .0456  | .0455 84199  | .9989 60500  | .0456 15805  | .0010 39860  |
| .0457  | .0456 84094  | .9989 55937  | .0457 15909  | .0010 44427  |
| .0458  | .0457 83990  | .9989 51363  | .0458 16014  | .0010 49003  |
| .0459  | .0458 83885  | .9989 46780  | .0459 16119  | .0010 53590  |
| 0.0460 | 0.0459 83779 | 0.9989 42187 | 0.0460 16224 | 1.0010 58187 |
| .0461  | .0460 83673  | .9989 37583  | .0461 16330  | .0010 62793  |
| .0462  | .0461 83567  | .9989 32970  | .0462 16437  | .0010 67410  |
| .0463  | .0462 83460  | .9989 28346  | .0463 16544  | .0010 72036  |
| .0464  | .0463 83352  | .9989 23713  | .0464 16651  | .0010 76673  |
| 0.0465 | 0.0464 83244 | 0.9989 19070 | 0.0465 16759 | 1.0010 81320 |
| .0466  | .0465 83136  | .9989 14416  | .0466 16868  | .0010 85977  |
| .0467  | .0466 83027  | .9989 09753  | .0467 16976  | .0010 90643  |
| .0468  | .0467 82918  | .9989 05080  | .0468 17086  | .0010 95320  |
| .0469  | .0468 82808  | .9989 00397  | .0469 17196  | .0011 00007  |
| 0.0470 | 0.0469 82698 | 0.9988 95703 | 0.0470 17306 | 1.0011 04703 |
| .0471  | .0470 82587  | .9988 91000  | .0471 17416  | .0011 09410  |
| .0472  | .0471 82476  | .9988 86287  | .0472 17528  | .0011 14127  |
| .0473  | .0472 82365  | .9988 81564  | .0473 17639  | .0011 18854  |
| .0474  | .0473 82253  | .9988 76830  | .0474 17751  | .0011 23590  |
| 0.0475 | 0.0474 82140 | 0.9988 72087 | 0.0475 17864 | 1.0011 28337 |
| .0476  | .0475 82027  | .9988 67354  | .0476 17977  | .0011 33094  |
| .0477  | .0476 81914  | .9988 62571  | .0477 18091  | .0011 37861  |
| .0478  | .0477 81800  | .9988 57798  | .0478 18205  | .0011 42638  |
| .0479  | .0478 81685  | .9988 53014  | .0479 18319  | .0011 47424  |
| 0.0480 | 0.0479 81570 | 0.9988 48221 | 0.0480 18434 | 1.0011 52221 |
| .0481  | .0480 81455  | .9988 43418  | .0481 18550  | .0011 57028  |
| .0482  | .0481 81339  | .9988 38605  | .0482 18666  | .0011 61845  |
| .0483  | .0482 81222  | .9988 33782  | .0483 18782  | .0011 66672  |
| .0484  | .0483 81106  | .9988 28949  | .0484 18899  | .0011 71509  |
| 0.0485 | 0.0484 80988 | 0.9988 24106 | 0.0485 19016 | 1.0011 76356 |
| .0486  | .0485 80870  | .9988 19252  | .0486 19134  | .0011 81212  |
| .0487  | .0486 80752  | .9988 14389  | .0487 19252  | .0011 86079  |
| .0488  | .0487 80633  | .9988 09516  | .0488 19371  | .0011 90956  |
| .0489  | .0488 80514  | .9988 04633  | .0489 19491  | .0011 95843  |
| 0.0490 | 0.0489 80394 | 0.9987 99740 | 0.0490 19611 | 1.0012 00740 |
| .0491  | .0490 80274  | .9987 94837  | .0491 19731  | .0012 05647  |
| .0492  | .0491 80153  | .9987 89924  | .0492 19852  | .0012 10564  |
| .0493  | .0492 80032  | .9987 85001  | .0493 19973  | .0012 15491  |
| .0494  | .0493 79910  | .9987 80068  | .0494 20095  | .0012 20428  |
| 0.0495 | 0.0494 79788 | 0.9987 75125 | 0.0495 20217 | 1.0012 25375 |
| .0496  | .0495 79665  | .9987 70172  | .0496 20340  | .0012 30332  |
| .0497  | .0496 79542  | .9987 65209  | .0497 20463  | .0012 35299  |
| .0498  | .0497 79418  | .9987 60236  | .0498 20587  | .0012 40276  |
| .0499  | .0498 79294  | .9987 55253  | .0499 20711  | .0012 45263  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.0500 | 0.0499 79169 | 0.9987 50260 | 0.0500 20836 | 1.0012 50260 |
| .0501  | .0500 79044  | .9987 45257  | .0501 20961  | .0012 55268  |
| .0502  | .0501 78918  | .9987 40245  | .0502 21087  | .0012 60285  |
| .0503  | .0502 78792  | .9987 35222  | .0503 21213  | .0012 65312  |
| .0504  | .0503 78665  | .9987 30189  | .0504 21340  | .0012 70349  |
| 0.0505 | 0.0504 78538 | 0.9987 25146 | 0.0505 21467 | 1.0012 75396 |
| .0506  | .0505 78410  | .9987 20093  | .0506 21595  | .0012 80453  |
| .0507  | .0506 78282  | .9987 15030  | .0507 21723  | .0012 85520  |
| .0508  | .0507 78153  | .9987 09957  | .0508 21852  | .0012 90598  |
| .0509  | .0508 78024  | .9987 04875  | .0509 21982  | .0012 95685  |
| 0.0510 | 0.0509 77894 | 0.9986 99782 | 0.0510 22111 | 1.0013 00782 |
| .0511  | .0510 77764  | .9986 94679  | .0511 22242  | .0013 05889  |
| .0512  | .0511 77633  | .9986 89566  | .0512 22373  | .0013 11006  |
| .0513  | .0512 77502  | .9986 84444  | .0513 22504  | .0013 16134  |
| .0514  | .0513 77370  | .9986 79311  | .0514 22636  | .0013 21271  |
| 0.0515 | 0.0514 77238 | 0.9986 74168 | 0.0515 22768 | 1.0013 26418 |
| .0516  | .0515 77105  | .9986 69015  | .0516 22901  | .0013 31575  |
| .0517  | .0516 76972  | .9986 63853  | .0517 23034  | .0013 36743  |
| .0518  | .0517 76838  | .9986 58680  | .0518 23168  | .0013 41920  |
| .0519  | .0518 76703  | .9986 53497  | .0519 23303  | .0013 47107  |
| 0.0520 | 0.0519 76569 | 0.9986 48305 | 0.0520 23438 | 1.0013 52305 |
| .0521  | .0520 76433  | .9986 43102  | .0521 23573  | .0013 57512  |
| .0522  | .0521 76297  | .9986 37889  | .0522 23709  | .0013 62729  |
| .0523  | .0522 76161  | .9986 32667  | .0523 23846  | .0013 67957  |
| .0524  | .0523 76024  | .9986 27434  | .0524 23983  | .0013 73194  |
| 0.0525 | 0.0524 75886 | 0.9986 22192 | 0.0525 24121 | 1.0013 78442 |
| .0526  | .0525 75748  | .9986 16939  | .0526 24259  | .0013 83699  |
| .0527  | .0526 75610  | .9986 11676  | .0527 24397  | .0013 88966  |
| .0528  | .0527 75470  | .9986 06404  | .0528 24536  | .0013 94244  |
| .0529  | .0528 75331  | .9986 01121  | .0529 24676  | .0013 99531  |
| 0.0530 | 0.0529 75191 | 0.9985 95829 | 0.0530 24816 | 1.0014 04829 |
| .0531  | .0530 75050  | .9985 90526  | .0531 24957  | .0014 10136  |
| .0532  | .0531 74909  | .9985 85214  | .0532 25098  | .0014 15454  |
| .0533  | .0532 74767  | .9985 79891  | .0533 25240  | .0014 20781  |
| .0534  | .0533 74625  | .9985 74559  | .0534 25383  | .0014 26119  |
| 0.0535 | 0.0534 74482 | 0.9985 69216 | 0.0535 25525 | 1.0014 31466 |
| .0536  | .0535 74339  | .9985 63864  | .0536 25669  | .0014 36824  |
| .0537  | .0536 74195  | .9985 58501  | .0537 25813  | .0014 42192  |
| .0538  | .0537 74050  | .9985 53129  | .0538 25957  | .0014 47569  |
| .0539  | .0538 73905  | .9985 47747  | .0539 26102  | .0014 52957  |
| 0.0540 | 0.0539 73760 | 0.9985 42354 | 0.0540 26248 | 1.0014 58354 |
| .0541  | .0540 73614  | .9985 36952  | .0541 26394  | .0014 63762  |
| .0542  | .0541 73467  | .9985 31540  | .0542 26541  | .0014 69180  |
| .0543  | .0542 73320  | .9985 26117  | .0543 26688  | .0014 74607  |
| .0544  | .0543 73172  | .9985 20685  | .0544 26836  | .0014 80045  |
| 0.0545 | 0.0544 73024 | 0.9985 15243 | 0.0545 26984 | 1.0014 85493 |
| .0546  | .0545 72875  | .9985 09790  | .0546 27133  | .0014 90950  |
| .0547  | .0546 72726  | .9985 04328  | .0547 27282  | .0014 96418  |
| .0548  | .0547 72576  | .9984 98856  | .0548 27432  | .0015 01896  |
| .0549  | .0548 72426  | .9984 93373  | .0549 27582  | .0015 07384  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.0550 | 0.0549 72275 | 0.9984 87881 | 0.0550 27733 | 1.0015 12881 |
| .0551  | .0550 72124  | .9984 82379  | .0551 27385  | .0015 13389  |
| .0552  | .0551 71972  | .9984 76867  | .0552 28037  | .0015 23907  |
| .0553  | .0552 71819  | .9984 71345  | .0553 28190  | .0015 29435  |
| .0554  | .0553 71666  | .9984 65812  | .0554 28343  | .0015 34973  |
| 0.0555 | 0.0554 71512 | 0.9984 60270 | 0.0555 28497 | 1.0015 40520 |
| .0556  | .0555 71358  | .9984 54718  | .0556 28651  | .0015 46073  |
| .0557  | .0556 71203  | .9984 49156  | .0557 28806  | .0015 51646  |
| .0558  | .0557 71048  | .9984 43584  | .0558 28961  | .0015 57224  |
| .0559  | .0558 70892  | .9984 38002  | .0559 29117  | .0015 62812  |
| 0.0560 | 0.0559 70735 | 0.9984 32410 | 0.0560 29274 | 1.0015 68410 |
| .0561  | .0560 70578  | .9984 26808  | .0561 29431  | .0015 74018  |
| .0562  | .0561 70421  | .9984 21196  | .0562 29589  | .0015 79636  |
| .0563  | .0562 70262  | .9984 15574  | .0563 29747  | .0015 85264  |
| .0564  | .0563 70104  | .9984 09942  | .0564 29906  | .0015 90902  |
| 0.0565 | 0.0564 69944 | 0.9984 04300 | 0.0565 30065 | 1.0015 96550 |
| .0566  | .0565 69785  | .9983 98648  | .0566 30225  | .0016 02208  |
| .0567  | .0566 69624  | .9983 92986  | .0567 30386  | .0016 07876  |
| .0568  | .0567 69463  | .9983 87314  | .0568 30547  | .0016 13554  |
| .0569  | .0568 69302  | .9983 81632  | .0569 30708  | .0016 19242  |
| 0.0570 | 0.0569 69140 | 0.9983 75940 | 0.0570 30871 | 1.0016 24940 |
| .0571  | .0570 68977  | .9983 70238  | .0571 31033  | .0016 30648  |
| .0572  | .0571 68814  | .9983 64526  | .0572 31197  | .0016 36366  |
| .0573  | .0572 68650  | .9983 58804  | .0573 31361  | .0016 42094  |
| .0574  | .0573 68485  | .9983 53072  | .0574 31525  | .0016 47832  |
| 0.0575 | 0.0574 68320 | 0.9983 47330 | 0.0575 31690 | 1.0016 53581 |
| .0576  | .0575 68155  | .9983 41579  | .0576 31856  | .0016 59339  |
| .0577  | .0576 67989  | .9983 35817  | .0577 32022  | .0016 65107  |
| .0578  | .0577 67822  | .9983 30045  | .0578 32189  | .0016 70885  |
| .0579  | .0578 67655  | .9983 24263  | .0579 32356  | .0016 76673  |
| 0.0580 | 0.0579 67487 | 0.9983 18471 | 0.0580 32524 | 1.0016 82472 |
| .0581  | .0580 67318  | .9983 12670  | .0581 32693  | .0016 88280  |
| .0582  | .0581 67149  | .9983 06858  | .0582 32862  | .0016 94098  |
| .0583  | .0582 66980  | .9983 01036  | .0583 33031  | .0016 99926  |
| .0584  | .0583 66810  | .9982 95205  | .0584 33202  | .0017 05765  |
| 0.0585 | 0.0584 66639 | 0.9982 89363 | 0.0585 33373 | 1.0017 11613 |
| .0586  | .0585 66467  | .9982 83511  | .0586 33544  | .0017 17471  |
| .0587  | .0586 66295  | .9982 77650  | .0587 33716  | .0017 23340  |
| .0588  | .0587 66123  | .9982 71778  | .0588 33889  | .0017 29218  |
| .0589  | .0588 65950  | .9982 65896  | .0589 34062  | .0017 35107  |
| 0.0590 | 0.0589 65776 | 0.9982 60005 | 0.0590 34236 | 1.0017 41005 |
| .0591  | .0590 65602  | .9982 54103  | .0591 34410  | .0017 46913  |
| .0592  | .0591 65427  | .9982 48192  | .0592 34585  | .0017 52832  |
| .0593  | .0592 65251  | .9982 42270  | .0593 34761  | .0017 58760  |
| .0594  | .0593 65075  | .9982 36339  | .0594 34937  | .0017 64699  |
| 0.0595 | 0.0594 64899 | 0.9982 30397 | 0.0595 35114 | 1.0017 70647 |
| .0596  | .0595 64721  | .9982 24446  | .0596 35291  | .0017 76606  |
| .0597  | .0596 64544  | .9982 18484  | .0597 35469  | .0017 82574  |
| .0598  | .0597 64365  | .9982 12513  | .0598 35648  | .0017 88553  |
| .0599  | .0598 64186  | .9982 06531  | .0599 35827  | .0017 94541  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 0.0600 | 0.0599 64006 | 0.9982 00540 | 0.0600 36006 | 1.0018 00540 |
| .0601  | .0600 63826  | .9981 94539  | .0601 36187  | .0018 06549  |
| .0602  | .0601 63645  | .9981 88527  | .0602 36368  | .0018 12567  |
| .0603  | .0602 63464  | .9981 82506  | .0603 36549  | .0018 18596  |
| .0604  | .0603 63282  | .9981 76474  | .0604 36732  | .0018 24635  |
| 0.0605 | 0.0604 63099 | 0.9981 70433 | 0.0605 36914 | 1.0018 30683 |
| .0606  | .0605 62916  | .9981 64382  | .0606 37098  | .0018 36742  |
| .0607  | .0606 62732  | .9981 58321  | .0607 37282  | .0018 42811  |
| .0608  | .0607 62548  | .9981 52249  | .0608 37466  | .0018 48889  |
| .0609  | .0608 62363  | .9981 46168  | .0609 37651  | .0018 54978  |
| 0.0610 | 0.0609 62177 | 0.9981 40077 | 0.0610 37837 | 1.0018 61077 |
| .0611  | .0610 61991  | .9981 33976  | .0611 38024  | .0018 67186  |
| .0612  | .0611 61804  | .9981 27864  | .0612 38211  | .0018 73305  |
| .0613  | .0612 61616  | .9981 21743  | .0613 38398  | .0018 79433  |
| .0614  | .0613 61428  | .9981 15612  | .0614 38587  | .0018 85572  |
| 0.0615 | 0.0614 61239 | 0.9981 09471 | 0.0615 38775 | 1.0018 91721 |
| .0616  | .0615 61050  | .9981 03320  | .0616 38965  | .0018 97880  |
| .0617  | .0616 60860  | .9980 97159  | .0617 39155  | .0019 04049  |
| .0618  | .0617 60669  | .9980 90988  | .0618 39346  | .0019 10228  |
| .0619  | .0618 60478  | .9980 84807  | .0619 39537  | .0019 16417  |
| 0.0620 | 0.0619 60286 | 0.9980 78616 | 0.0620 39729 | 1.0019 22616 |
| .0621  | .0620 60094  | .9980 72415  | .0621 39922  | .0019 28825  |
| .0622  | .0621 59901  | .9980 66204  | .0622 40115  | .0019 35044  |
| .0623  | .0622 59707  | .9980 59983  | .0623 40309  | .0019 41273  |
| .0624  | .0623 59513  | .9980 53752  | .0624 40503  | .0019 47512  |
| 0.0625 | 0.0624 59318 | 0.9980 47511 | 0.0625 40698 | 1.0019 53761 |
| .0626  | .0625 59122  | .9980 41260  | .0626 40894  | .0019 60020  |
| .0627  | .0626 58926  | .9980 34999  | .0627 41090  | .0019 66289  |
| .0628  | .0627 58729  | .9980 28728  | .0628 41287  | .0019 72568  |
| .0629  | .0628 58532  | .9980 22447  | .0629 41485  | .0019 78857  |
| 0.0630 | 0.0629 58334 | 0.9980 16156 | 0.0630 41683 | 1.0019 85156 |
| .0631  | .0630 58135  | .9980 09855  | .0631 41882  | .0019 91466  |
| .0632  | .0631 57936  | .9980 03545  | .0632 42081  | .0019 97785  |
| .0633  | .0632 57736  | .9979 97224  | .0633 42281  | .0020 04114  |
| .0634  | .0633 57535  | .9979 90893  | .0634 42482  | .0020 10453  |
| 0.0635 | 0.0634 57334 | 0.9979 84552 | 0.0635 42683 | 1.0020 16803 |
| .0636  | .0635 57132  | .9979 78202  | .0636 42885  | .0020 23162  |
| .0637  | .0636 56930  | .9979 71841  | .0637 43088  | .0020 29531  |
| .0638  | .0637 56726  | .9979 65470  | .0638 43291  | .0020 35910  |
| .0639  | .0638 56523  | .9979 59090  | .0639 43495  | .0020 42300  |
| 0.0640 | 0.0639 56318 | 0.9979 52699 | 0.0640 43700 | 1.0020 48699 |
| .0641  | .0640 56113  | .9979 46298  | .0641 43905  | .0020 55109  |
| .0642  | .0641 55908  | .9979 39888  | .0642 44111  | .0020 61528  |
| .0643  | .0642 55701  | .9979 33467  | .0643 44317  | .0020 67957  |
| .0644  | .0643 55494  | .9979 27037  | .0644 44524  | .0020 74397  |
| 0.0645 | 0.0644 55287 | 0.9979 20596 | 0.0645 44732 | 1.0020 80846 |
| .0646  | .0645 55078  | .9979 14146  | .0646 44940  | .0020 87306  |
| .0647  | .0646 54869  | .9979 07685  | .0647 45149  | .0020 93775  |
| .0648  | .0647 54660  | .9979 01215  | .0648 45359  | .0021 00255  |
| .0649  | .0648 54450  | .9978 94734  | .0649 45570  | .0021 06744  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.0650 | 0.0649 54239 | 0.9978 88244 | 0.0650 45781 | 1.0021 13244 |
| .0651  | .0650 54027  | .9978 81743  | .0651 45992  | .0021 19753  |
| .0652  | .0651 53815  | .9978 75233  | .0652 46204  | .0021 26273  |
| .0653  | .0652 53602  | .9978 68712  | .0653 46417  | .0021 32803  |
| .0654  | .0653 53389  | .9978 62182  | .0654 46631  | .0021 39342  |
| 0.0655 | 0.0654 53175 | 0.9978 55642 | 0.0655 46845 | 1.0021 45892 |
| .0656  | .0655 52960  | .9978 49092  | .0656 47060  | .0021 52452  |
| .0657  | .0656 52745  | .9978 42531  | .0657 47276  | .0021 59021  |
| .0658  | .0657 52529  | .9978 35961  | .0658 47492  | .0021 65601  |
| .0659  | .0658 52312  | .9978 29381  | .0659 47709  | .0021 72191  |
| 0.0660 | 0.0659 52094 | 0.9978 22790 | 0.0660 47926 | 1.0021 78791 |
| .0661  | .0660 51876  | .9978 16190  | .0661 48145  | .0021 85401  |
| .0662  | .0661 51658  | .9978 09580  | .0662 48364  | .0021 92020  |
| .0663  | .0662 51438  | .9978 02960  | .0663 48583  | .0021 98650  |
| .0664  | .0663 51218  | .9977 96330  | .0664 48803  | .0022 05290  |
| 0.0665 | 0.0664 50998 | 0.9977 89690 | 0.0665 49024 | 1.0022 11940 |
| .0666  | .0665 50776  | .9977 83040  | .0666 49246  | .0022 18600  |
| .0667  | .0666 50554  | .9977 76380  | .0667 49468  | .0022 25270  |
| .0668  | .0667 50331  | .9977 69710  | .0668 49691  | .0022 31950  |
| .0669  | .0668 50108  | .9977 63030  | .0669 49914  | .0022 38640  |
| 0.0670 | 0.0669 49884 | 0.9977 56340 | 0.0670 50138 | 1.0022 45340 |
| .0671  | .0670 49659  | .9977 49640  | .0671 50363  | .0022 52050  |
| .0672  | .0671 49434  | .9977 42930  | .0672 50589  | .0022 58770  |
| .0673  | .0672 49208  | .9977 36210  | .0673 50815  | .0022 65500  |
| .0674  | .0673 48981  | .9977 29480  | .0674 51042  | .0022 72240  |
| 0.0675 | 0.0674 48754 | 0.9977 22740 | 0.0675 51269 | 1.0022 78990 |
| .0676  | .0675 48526  | .9977 15990  | .0676 51498  | .0022 85750  |
| .0677  | .0676 48297  | .9977 09230  | .0677 51727  | .0022 92520  |
| .0678  | .0677 48068  | .9977 02460  | .0678 51956  | .0022 99301  |
| .0679  | .0678 47838  | .9976 95681  | .0679 52187  | .0023 06091  |
| 0.0680 | 0.0679 47607 | 0.9976 88891 | 0.0680 52417 | 1.0023 12891 |
| .0681  | .0680 47375  | .9976 82091  | .0681 52649  | .0023 19701  |
| .0682  | .0681 47143  | .9976 75281  | .0682 52881  | .0023 26522  |
| .0683  | .0682 46910  | .9976 68462  | .0683 53114  | .0023 33352  |
| .0684  | .0683 46677  | .9976 61632  | .0684 53348  | .0023 40192  |
| 0.0685 | 0.0684 46443 | 0.9976 54792 | 0.0685 53582 | 1.0023 47043 |
| .0686  | .0685 46208  | .9976 47943  | .0686 53817  | .0023 53903  |
| .0687  | .0686 45972  | .9976 41083  | .0687 54053  | .0023 60773  |
| .0688  | .0687 45736  | .9976 34213  | .0688 54290  | .0023 67654  |
| .0689  | .0688 45499  | .9976 27334  | .0689 54527  | .0023 74544  |
| 0.0690 | 0.0689 45262 | 0.9976 20444 | 0.0690 54765 | 1.0023 81445 |
| .0691  | .0690 45023  | .9976 13545  | .0691 55003  | .0023 88355  |
| .0692  | .0691 44784  | .9976 06635  | .0692 55242  | .0023 95276  |
| .0693  | .0692 44545  | .9975 99716  | .0693 55482  | .0024 02206  |
| .0694  | .0693 44304  | .9975 92786  | .0694 55723  | .0024 09147  |
| 0.0695 | 0.0694 44063 | 0.9975 85847 | 0.0695 55964 | 1.0024 16097 |
| .0696  | .0695 43821  | .9975 78898  | .0696 56206  | .0024 23058  |
| .0697  | .0696 43579  | .9975 71938  | .0697 56449  | .0024 30029  |
| .0698  | .0697 43336  | .9975 64969  | .0698 56692  | .0024 37009  |
| .0699  | .0698 43092  | .9975 57990  | .0699 56936  | .0024 44000  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.0700 | 0.0699 42847 | 0.9975 51000 | 0.0700 57181 | 1.0024 51001 |
| .0701  | .0700 42602  | .9975 44001  | .0701 57426  | .0024 58011  |
| .0702  | .0701 42356  | .9975 36992  | .0702 57672  | .0024 65032  |
| .0703  | .0702 42109  | .9975 29973  | .0703 57919  | .0024 72063  |
| .0704  | .0703 41862  | .9975 22943  | .0704 58167  | .0024 79104  |
| 0.0705 | 0.0704 41614 | 0.9975 15904 | 0.0705 58415 | 1.0024 86154 |
| .0706  | .0705 41365  | .9975 08855  | .0706 58664  | .0024 93215  |
| .0707  | .0706 41116  | .9975 01796  | .0707 58914  | .0025 00286  |
| .0708  | .0707 40866  | .9974 94727  | .0708 59164  | .0025 07367  |
| .0709  | .0708 40615  | .9974 87648  | .0709 59415  | .0025 14458  |
| 0.0710 | 0.0709 40363 | 0.9974 80559 | 0.0710 59667 | 1.0025 21559 |
| .0711  | .0710 40111  | .9974 73460  | .0711 59919  | .0025 28670  |
| .0712  | .0711 39858  | .9974 66351  | .0712 60173  | .0025 35791  |
| .0713  | .0712 39604  | .9974 59232  | .0713 60427  | .0025 42922  |
| .0714  | .0713 39350  | .9974 52103  | .0714 60681  | .0025 50063  |
| 0.0715 | 0.0714 39095 | 0.9974 44964 | 0.0715 60937 | 1.0025 57214 |
| .0716  | .0715 38839  | .9974 37815  | .0716 61193  | .0025 64375  |
| .0717  | .0716 38582  | .9974 30656  | .0717 61449  | .0025 71546  |
| .0718  | .0717 38325  | .9974 23487  | .0718 61707  | .0025 78728  |
| .0719  | .0718 38067  | .9974 16308  | .0719 61965  | .0025 85919  |
| 0.0720 | 0.0719 37808 | 0.9974 09120 | 0.0720 62224 | 1.0025 93120 |
| .0721  | .0720 37549  | .9974 01921  | .0721 62484  | .0026 00331  |
| .0722  | .0721 37289  | .9973 94712  | .0722 62744  | .0026 07552  |
| .0723  | .0722 37028  | .9973 87493  | .0723 63005  | .0026 14784  |
| .0724  | .0723 36766  | .9973 80265  | .0724 63267  | .0026 22025  |
| 0.0725 | 0.0724 36504 | 0.9973 73026 | 0.0725 63530 | 1.0026 29276 |
| .0726  | .0725 36241  | .9973 65777  | .0726 63793  | .0026 36538  |
| .0727  | .0726 35977  | .9973 58519  | .0727 64057  | .0026 43809  |
| .0728  | .0727 35712  | .9973 51250  | .0728 64322  | .0026 51091  |
| .0729  | .0728 35447  | .9973 43972  | .0729 64587  | .0026 58382  |
| 0.0730 | 0.0729 35181 | 0.9973 36683 | 0.0730 64853 | 1.0026 65683 |
| .0731  | .0730 34914  | .9973 29385  | .0731 65120  | .0026 72995  |
| .0732  | .0731 34647  | .9973 22076  | .0732 65388  | .0026 80316  |
| .0733  | .0732 34379  | .9973 14758  | .0733 65656  | .0026 87648  |
| .0734  | .0733 34110  | .9973 07429  | .0734 65926  | .0026 94990  |
| 0.0735 | 0.0734 33840 | 0.9973 00091 | 0.0735 66195 | 1.0027 02341 |
| .0736  | .0735 33570  | .9972 92742  | .0736 66466  | .0027 09703  |
| .0737  | .0736 33299  | .9972 85384  | .0737 66737  | .0027 17075  |
| .0738  | .0737 33027  | .9972 78016  | .0738 67009  | .0027 24456  |
| .0739  | .0738 32754  | .9972 70637  | .0739 67282  | .0027 31848  |
| 0.0740 | 0.0739 32481 | 0.9972 63249 | 0.0740 67556 | 1.0027 39250 |
| .0741  | .0740 32207  | .9972 55851  | .0741 67830  | .0027 46661  |
| .0742  | .0741 31932  | .9972 48443  | .0742 68105  | .0027 54083  |
| .0743  | .0742 31657  | .9972 41025  | .0743 68381  | .0027 61515  |
| .0744  | .0743 31381  | .9972 33596  | .0744 68657  | .0027 68957  |
| 0.0745 | 0.0744 31104 | 0.9972 26158 | 0.0745 68935 | 1.0027 76409 |
| .0746  | .0745 30826  | .9972 18710  | .0746 69213  | .0027 83871  |
| .0747  | .0746 30547  | .9972 11252  | .0747 69492  | .0027 91343  |
| .0748  | .0747 30268  | .9972 03784  | .0748 69771  | .0027 98825  |
| .0749  | .0748 29988  | .9971 96306  | .0749 70051  | .0028 06317  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.0750 | 0.0749 29707 | 0.9971 88818 | 0.0750 70332 | 1.0028 13819 |
| .0751  | .0750 29426  | .9971 81320  | .0751 70614  | .0028 21231  |
| .0752  | .0751 29144  | .9971 73812  | .0752 70897  | .0028 28853  |
| .0753  | .0752 28861  | .9971 66294  | .0753 71180  | .0028 36385  |
| .0754  | .0753 28577  | .9971 58766  | .0754 71464  | .0028 43927  |
| 0.0755 | 0.0754 28292 | 0.9971 51229 | 0.0755 71749 | 1.0028 51479 |
| .0756  | .0755 28007  | .9971 43681  | .0756 72034  | .0028 59041  |
| .0757  | .0756 27721  | .9971 36123  | .0757 72320  | .0028 66614  |
| .0758  | .0757 27434  | .9971 28555  | .0758 72607  | .0028 74196  |
| .0759  | .0758 27147  | .9971 20978  | .0759 72895  | .0028 81788  |
| 0.0760 | 0.0759 26858 | 0.9971 13390 | 0.0760 73184 | 1.0028 89300 |
| .0761  | .0760 26569  | .9971 05792  | .0761 73473  | .0028 97003  |
| .0762  | .0761 26280  | .9970 98185  | .0762 73763  | .0029 04625  |
| .0763  | .0762 25989  | .9970 90567  | .0763 74054  | .0029 12257  |
| .0764  | .0763 25698  | .9970 82939  | .0764 74346  | .0029 19900  |
| 0.0765 | 0.0764 25406 | 0.9970 75302 | 0.0765 74638 | 1.0029 27552 |
| .0766  | .0765 25113  | .9970 67654  | .0766 74931  | .0029 35215  |
| .0767  | .0766 24819  | .9970 59997  | .0767 75225  | .0029 42837  |
| .0768  | .0767 24525  | .9970 52329  | .0768 75520  | .0029 50570  |
| .0769  | .0768 24230  | .9970 44652  | .0769 75815  | .0029 58262  |
| 0.0770 | 0.0769 23934 | 0.9970 36964 | 0.0770 76111 | 1.0029 65965 |
| .0771  | .0770 23637  | .9970 29267  | .0771 76408  | .0029 73678  |
| .0772  | .0771 23340  | .9970 21560  | .0772 76706  | .0029 81400  |
| .0773  | .0772 23041  | .9970 13842  | .0773 77005  | .0029 89133  |
| .0774  | .0773 22742  | .9970 06115  | .0774 77304  | .0029 96876  |
| 0.0775 | 0.0774 22443 | 0.9969 98378 | 0.0775 77604 | 1.0030 04628 |
| .0776  | .0775 22142  | .9969 90631  | .0776 77905  | .0030 12391  |
| .0777  | .0776 21841  | .9969 82873  | .0777 78207  | .0030 20164  |
| .0778  | .0777 21539  | .9969 75106  | .0778 78509  | .0030 27947  |
| .0779  | .0778 21236  | .9969 67329  | .0779 78812  | .0030 35740  |
| 0.0780 | 0.0779 20932 | 0.9969 59542 | 0.0780 79116 | 1.0030 43543 |
| .0781  | .0780 20628  | .9969 51745  | .0781 79421  | .0030 51356  |
| .0782  | .0781 20322  | .9969 43938  | .0782 79726  | .0030 59178  |
| .0783  | .0782 20016  | .9969 36121  | .0783 80033  | .0030 67011  |
| .0784  | .0783 19710  | .9969 28294  | .0784 80340  | .0030 74854  |
| 0.0785 | 0.0784 19402 | 0.9969 20457 | 0.0785 80648 | 1.0030 82708 |
| .0786  | .0785 19094  | .9969 12610  | .0786 80956  | .0030 90571  |
| .0787  | .0786 18785  | .9969 04753  | .0787 81266  | .0030 98444  |
| .0788  | .0787 18475  | .9968 96886  | .0788 81576  | .0031 06327  |
| .0789  | .0788 18164  | .9968 89009  | .0789 81887  | .0031 14220  |
| 0.0790 | 0.0789 17852 | 0.9968 81123 | 0.0790 82199 | 1.0031 22123 |
| .0791  | .0790 17540  | .9968 73226  | .0791 82511  | .0031 30036  |
| .0792  | .0791 17227  | .9968 65319  | .0792 82825  | .0031 37960  |
| .0793  | .0792 16913  | .9968 57402  | .0793 83139  | .0031 45893  |
| .0794  | .0793 16599  | .9968 49476  | .0794 83454  | .0031 53836  |
| 0.0795 | 0.0794 16283 | 0.9968 41539 | 0.0795 83770 | 1.0031 61790 |
| .0796  | .0795 15967  | .9968 33592  | .0796 84086  | .0031 69753  |
| .0797  | .0796 15650  | .9968 25636  | .0797 84404  | .0031 77727  |
| .0798  | .0797 15332  | .9968 17669  | .0798 84722  | .0031 85710  |
| .0799  | .0798 15013  | .9968 09693  | .0799 85041  | .0031 93704  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.0800 | 0.0799 14694 | 0.9968 01706 | 0.0800 85361 | 1.0032 01707 |
| .0801  | .0800 14574  | .9967 95710  | .0801 85681  | .0032 09721  |
| .0802  | .0801 14053  | .9967 85703  | .0802 86003  | .0032 17744  |
| .0803  | .0802 13731  | .9967 77687  | .0803 86325  | .0032 25778  |
| .0804  | .0803 13408  | .9967 69661  | .0804 86648  | .0032 33821  |
| 0.0805 | 0.0804 13085 | 0.9967 61624 | 0.0805 86972 | 1.0032 41875 |
| .0806  | .0805 12761  | .9967 53578  | .0806 87296  | .0032 49939  |
| .0807  | .0806 12436  | .9967 45522  | .0807 87622  | .0032 58013  |
| .0808  | .0807 12110  | .9967 37456  | .0808 87948  | .0032 66096  |
| .0809  | .0808 11783  | .9967 29379  | .0809 88275  | .0032 74190  |
| 0.0810 | 0.0809 11456 | 0.9967 21293 | 0.0810 88603 | 1.0032 82294 |
| .0811  | .0810 11127  | .9967 13197  | .0811 88931  | .0032 90408  |
| .0812  | .0811 10798  | .9967 05091  | .0812 89261  | .0032 98532  |
| .0813  | .0812 10468  | .9966 96975  | .0813 89591  | .0033 06666  |
| .0814  | .0813 10138  | .9966 88849  | .0814 89922  | .0033 14810  |
| 0.0815 | 0.0814 09806 | 0.9966 80713 | 0.0815 90254 | 1.0033 22964 |
| .0816  | .0815 09474  | .9966 72567  | .0816 90587  | .0033 31128  |
| .0817  | .0816 09141  | .9966 64411  | .0817 90920  | .0033 39302  |
| .0818  | .0817 08807  | .9966 56245  | .0818 91254  | .0033 47486  |
| .0819  | .0818 08472  | .9966 48069  | .0819 91590  | .0033 55680  |
| 0.0820 | 0.0819 08136 | 0.9966 39883 | 0.0820 91926 | 1.0033 63884 |
| .0821  | .0820 07800  | .9966 31688  | .0821 92262  | .0033 72098  |
| .0822  | .0821 07463  | .9966 23482  | .0822 92600  | .0033 80323  |
| .0823  | .0822 07124  | .9966 15266  | .0823 92938  | .0033 88557  |
| .0824  | .0823 06786  | .9966 07040  | .0824 93278  | .0033 96801  |
| 0.0825 | 0.0824 06446 | 0.9965 98805 | 0.0825 93618 | 1.0034 05056 |
| .0826  | .0825 06105  | .9965 90559  | .0826 93959  | .0034 13320  |
| .0827  | .0826 05764  | .9965 82304  | .0827 94300  | .0034 21594  |
| .0828  | .0827 05422  | .9965 74038  | .0828 94643  | .0034 29879  |
| .0829  | .0828 05079  | .9965 65762  | .0829 94986  | .0034 38173  |
| 0.0830 | 0.0829 04735 | 0.9965 57477 | 0.0830 95331 | 1.0034 46478 |
| .0831  | .0830 04390  | .9965 49182  | .0831 95676  | .0034 54792  |
| .0832  | .0831 04045  | .9965 40876  | .0832 96022  | .0034 63117  |
| .0833  | .0832 03698  | .9965 32561  | .0833 96368  | .0034 71452  |
| .0834  | .0833 03351  | .9965 24235  | .0834 96716  | .0034 79796  |
| 0.0835 | 0.0834 03003 | 0.9965 15900 | 0.0835 97064 | 1.0034 88151 |
| .0836  | .0835 02655  | .9965 07555  | .0836 97414  | .0034 96516  |
| .0837  | .0836 02305  | .9964 99200  | .0837 97764  | .0035 04890  |
| .0838  | .0837 01954  | .9964 90834  | .0838 98115  | .0035 13275  |
| .0839  | .0838 01603  | .9964 82459  | .0839 98466  | .0035 21670  |
| 0.0840 | 0.0839 01251 | 0.9964 74074 | 0.0840 98819 | 1.0035 30075 |
| .0841  | .0840 00898  | .9964 65679  | .0841 99172  | .0035 38490  |
| .0842  | .0841 00544  | .9964 57274  | .0842 99527  | .0035 46915  |
| .0843  | .0842 00189  | .9964 48859  | .0843 99882  | .0035 55350  |
| .0844  | .0842 99834  | .9964 40434  | .0845 00238  | .0035 63795  |
| 0.0845 | 0.0843 99477 | 0.9964 31999 | 0.0846 00594 | 1.0035 72250 |
| .0846  | .0844 99120  | .9964 23554  | .0847 00952  | .0035 80715  |
| .0847  | .0845 98762  | .9964 15099  | .0848 01311  | .0035 89190  |
| .0848  | .0846 98403  | .9964 06634  | .0849 01670  | .0035 97675  |
| .0849  | .0847 98043  | .9963 98159  | .0850 02030  | .0036 06170  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.0850 | 0.0848 97683 | 0.9963 89675 | 0.0851 02391 | 1.0036 14676 |
| .0851  | .0849 97321  | .9963 81180  | .0852 02753  | .0036 23151  |
| .0852  | .0850 96959  | .9963 72675  | .0853 03116  | .0036 31716  |
| .0853  | .0851 96596  | .9963 64160  | .0854 03479  | .0036 40251  |
| .0854  | .0852 96232  | .9963 55636  | .0855 03844  | .0036 48757  |
| 0.0855 | 0.0853 96867 | 0.9963 47101 | 0.0856 04209 | 1.0036 57352 |
| .0856  | .0854 95501  | .9963 38557  | .0857 04575  | .0036 65918  |
| .0857  | .0855 95135  | .9963 30002  | .0858 04942  | .0036 74493  |
| .0858  | .0856 94767  | .9963 21438  | .0859 05310  | .0036 83079  |
| .0859  | .0857 94399  | .9963 12863  | .0860 05679  | .0036 91674  |
| 0.0860 | 0.0858 94030 | 0.9963 04279 | 0.0861 06049 | 1.0037 00280 |
| .0861  | .0859 93660  | .9962 95684  | .0862 06419  | .0037 08895  |
| .0862  | .0860 93289  | .9962 87080  | .0863 06790  | .0037 17521  |
| .0863  | .0861 92917  | .9962 78466  | .0864 07163  | .0037 26157  |
| .0864  | .0862 92545  | .9962 69841  | .0865 07536  | .0037 34802  |
| 0.0865 | 0.0863 92171 | 0.9962 61207 | 0.0866 07909 | 1.0037 43458 |
| .0866  | .0864 91797  | .9962 52563  | .0867 08284  | .0037 52124  |
| .0867  | .0865 91422  | .9962 43909  | .0868 08660  | .0037 60800  |
| .0868  | .0866 91046  | .9962 35245  | .0869 09036  | .0037 69486  |
| .0869  | .0867 90669  | .9962 26571  | .0870 09414  | .0037 78182  |
| 0.0870 | 0.0868 90291 | 0.9962 17886 | 0.0871 09792 | 1.0037 86888 |
| .0871  | .0869 89912  | .9962 09192  | .0872 10171  | .0037 95604  |
| .0872  | .0870 89533  | .9962 00488  | .0873 10551  | .0038 04330  |
| .0873  | .0871 89152  | .9961 91775  | .0874 10932  | .0038 13066  |
| .0874  | .0872 88771  | .9961 83051  | .0875 11314  | .0038 21812  |
| 0.0875 | 0.0873 88389 | 0.9961 74317 | 0.0876 11696 | 1.0038 30568 |
| .0876  | .0874 88006  | .9961 65573  | .0877 12080  | .0038 39334  |
| .0877  | .0875 87622  | .9961 56819  | .0878 12464  | .0038 48110  |
| .0878  | .0876 87237  | .9961 48055  | .0879 12850  | .0038 56897  |
| .0879  | .0877 86852  | .9961 39282  | .0880 13236  | .0038 65693  |
| 0.0880 | 0.0878 86465 | 0.9961 30498 | 0.0881 13623 | 1.0038 74499 |
| .0881  | .0879 86078  | .9961 21704  | .0882 14011  | .0038 83316  |
| .0882  | .0880 85690  | .9961 12901  | .0883 14399  | .0038 92142  |
| .0883  | .0881 85300  | .9961 04087  | .0884 14789  | .0039 00979  |
| .0884  | .0882 84910  | .9960 95264  | .0885 15180  | .0039 09825  |
| 0.0885 | 0.0883 84520 | 0.9960 86430 | 0.0886 15571 | 1.0039 18682 |
| .0886  | .0884 84128  | .9960 77587  | .0887 15963  | .0039 27548  |
| .0887  | .0885 83735  | .9960 68734  | .0888 16356  | .0039 36425  |
| .0888  | .0886 83341  | .9960 59870  | .0889 16751  | .0039 45312  |
| .0889  | .0887 82947  | .9960 50997  | .0890 17146  | .0039 54208  |
| 0.0890 | 0.0888 82552 | 0.9960 42114 | 0.0891 17541 | 1.0039 63115 |
| .0891  | .0889 82155  | .9960 33220  | .0892 17938  | .0039 72032  |
| .0892  | .0890 81758  | .9960 24317  | .0893 18336  | .0039 80959  |
| .0893  | .0891 81360  | .9960 15404  | .0894 18734  | .0039 89895  |
| .0894  | .0892 80961  | .9960 06481  | .0895 19134  | .0039 98842  |
| 0.0895 | 0.0893 80562 | 0.9959 97548 | 0.0896 19534 | 1.0040 07799 |
| .0896  | .0894 80161  | .9959 88605  | .0897 19935  | .0040 16766  |
| .0897  | .0895 79759  | .9959 79652  | .0898 20337  | .0040 25743  |
| .0898  | .0896 79357  | .9959 70689  | .0899 20740  | .0040 34730  |
| .0899  | .0897 78953  | .9959 61716  | .0900 21144  | .0040 43727  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.0900 | 0.0898 78549 | 0.9959 52733 | 0.0901 21549 | 1.0040 52734 |
| .0901  | .0899 78144  | .9959 43740  | .0902 21955  | .0040 61752  |
| .0902  | .0900 77738  | .9959 34737  | .0903 22362  | .0040 70779  |
| .0903  | .0901 77331  | .9959 25725  | .0904 22769  | .0040 79816  |
| .0904  | .0902 76923  | .9959 16702  | .0905 23178  | .0040 88863  |
| 0.0905 | 0.0903 76514 | 0.9959 07669 | 0.0906 23587 | 1.0040 97921 |
| .0906  | .0904 76105  | .9958 98627  | .0907 23997  | .0041 06988  |
| .0907  | .0905 75694  | .9958 89574  | .0908 24408  | .0041 16066  |
| .0908  | .0906 75283  | .9958 80511  | .0909 24820  | .0041 25153  |
| .0909  | .0907 74870  | .9958 71439  | .0910 25233  | .0041 34251  |
| 0.0910 | 0.0908 74457 | 0.9958 62357 | 0.0911 25647 | 1.0041 43358 |
| .0911  | .0909 74043  | .9958 53264  | .0912 26062  | .0041 52476  |
| .0912  | .0910 73627  | .9958 44162  | .0913 26478  | .0041 61603  |
| .0913  | .0911 73211  | .9958 35049  | .0914 26894  | .0041 70741  |
| .0914  | .0912 72794  | .9958 25927  | .0915 27312  | .0041 79889  |
| 0.0915 | 0.0913 72377 | 0.9958 16795 | 0.0916 27730 | 1.0041 89046 |
| .0916  | .0914 71958  | .9958 07653  | .0917 28150  | .0041 98214  |
| .0917  | .0915 71538  | .9957 98500  | .0918 28570  | .0042 07392  |
| .0918  | .0916 71118  | .9957 89338  | .0919 28991  | .0042 16580  |
| .0919  | .0917 70696  | .9957 80166  | .0920 29413  | .0042 25778  |
| 0.0920 | 0.0918 70274 | 0.9957 70984 | 0.0921 29836 | 1.0042 34986 |
| .0921  | .0919 69850  | .9957 61792  | .0922 30260  | .0042 44204  |
| .0922  | .0920 69426  | .9957 52590  | .0923 30685  | .0042 53432  |
| .0923  | .0921 69001  | .9957 43378  | .0924 31111  | .0042 62670  |
| .0924  | .0922 68575  | .9957 34156  | .0925 31538  | .0042 71918  |
| 0.0925 | 0.0923 68148 | 0.9957 24925 | 0.0926 31965 | 1.0042 81176 |
| .0926  | .0924 67720  | .9957 15683  | .0927 32394  | .0042 90444  |
| .0927  | .0925 67291  | .9957 06431  | .0928 32823  | .0042 99723  |
| .0928  | .0926 66861  | .9956 97169  | .0929 33254  | .0043 09011  |
| .0929  | .0927 66430  | .9956 87898  | .0930 33685  | .0043 18309  |
| 0.0930 | 0.0928 65998 | 0.9956 78616 | 0.0931 34117 | 1.0043 27618 |
| .0931  | .0929 65566  | .9956 69324  | .0932 34551  | .0043 36936  |
| .0932  | .0930 65132  | .9956 60023  | .0933 34985  | .0043 46265  |
| .0933  | .0931 64698  | .9956 50711  | .0934 35420  | .0043 55603  |
| .0934  | .0932 64262  | .9956 41390  | .0935 35856  | .0043 64952  |
| 0.0935 | 0.0933 63826 | 0.9956 32059 | 0.0936 36293 | 1.0043 74310 |
| .0936  | .0934 63389  | .9956 22717  | .0937 36731  | .0043 83679  |
| .0937  | .0935 62951  | .9956 13366  | .0938 37170  | .0043 93058  |
| .0938  | .0936 62512  | .9956 04005  | .0939 37609  | .0044 02446  |
| .0939  | .0937 62071  | .9955 94633  | .0940 38050  | .0044 11845  |
| 0.0940 | 0.0938 61630 | 0.9955 85252 | 0.0941 38492 | 1.0044 21254 |
| .0941  | .0939 61189  | .9955 75861  | .0942 38934  | .0044 30673  |
| .0942  | .0940 60746  | .9955 66460  | .0943 39378  | .0044 40102  |
| .0943  | .0941 60302  | .9955 57049  | .0944 39822  | .0044 49541  |
| .0944  | .0942 59857  | .9955 47628  | .0945 40268  | .0044 58990  |
| 0.0945 | 0.0943 59411 | 0.9955 38197 | 0.0946 40714 | 1.0044 68449 |
| .0946  | .0944 58965  | .9955 28756  | .0947 41162  | .0044 77918  |
| .0947  | .0945 58517  | .9955 19305  | .0948 41610  | .0044 87397  |
| .0948  | .0946 58069  | .9955 09844  | .0949 42059  | .0044 96886  |
| .0949  | .0947 57619  | .9955 00373  | .0950 42509  | .0045 06386  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.0950 | 0.0948 57169 | 0.9954 90893 | 0.0951 42960 | 1.0045 15895 |
| .0951  | .0949 56717  | .9954 81402  | .0952 43412  | .0045 25414  |
| .0952  | .0950 56265  | .9954 71901  | .0953 43865  | .0045 34943  |
| .0953  | .0951 55812  | .9954 62391  | .0954 44319  | .0045 44483  |
| .0954  | .0952 55357  | .9954 52870  | .0955 44774  | .0045 54032  |
| 0.0955 | 0.0953 54902 | 0.9954 43340 | 0.0956 45230 | 1.0045 63592 |
| .0956  | .0954 54446  | .9954 33799  | .0957 45687  | .0045 73161  |
| .0957  | .0955 53989  | .9954 24249  | .0958 46145  | .0045 82741  |
| .0958  | .0956 53531  | .9954 14688  | .0959 46604  | .0045 92331  |
| .0959  | .0957 53072  | .9954 05118  | .0960 47063  | .0046 01930  |
| 0.0960 | 0.0958 52612 | 0.9953 95538 | 0.0961 47524 | 1.0046 11540 |
| .0961  | .0959 52151  | .9953 85948  | .0962 47986  | .0046 21160  |
| .0962  | .0960 51689  | .9953 76347  | .0963 48448  | .0046 30790  |
| .0963  | .0961 51226  | .9953 66737  | .0964 48912  | .0046 40429  |
| .0964  | .0962 50762  | .9953 57117  | .0965 49376  | .0046 50079  |
| 0.0965 | 0.0963 50298 | 0.9953 47487 | 0.0966 49842 | 1.0046 59739 |
| .0966  | .0964 49832  | .9953 37847  | .0967 50308  | .0046 69409  |
| .0967  | .0965 49365  | .9953 28197  | .0968 50776  | .0046 79089  |
| .0968  | .0966 48898  | .9953 18537  | .0969 51244  | .0046 88780  |
| .0969  | .0967 48429  | .9953 08867  | .0970 51713  | .0046 98480  |
| 0.0970 | 0.0968 47959 | 0.9952 99188 | 0.0971 52184 | 1.0047 08190 |
| .0971  | .0969 47489  | .9952 89498  | .0972 52655  | .0047 17910  |
| .0972  | .0970 47017  | .9952 79798  | .0973 53127  | .0047 27640  |
| .0973  | .0971 46545  | .9952 70088  | .0974 53601  | .0047 37381  |
| .0974  | .0972 46071  | .9952 60369  | .0975 54075  | .0047 47131  |
| 0.0975 | 0.0973 45597 | 0.9952 50639 | 0.0976 54550 | 1.0047 56892 |
| .0976  | .0974 45121  | .9952 40900  | .0977 55026  | .0047 66662  |
| .0977  | .0975 44645  | .9952 31150  | .0978 55503  | .0047 76443  |
| .0978  | .0976 44168  | .9952 21391  | .0979 55981  | .0047 86233  |
| .0979  | .0977 43689  | .9952 11621  | .0980 56461  | .0047 96034  |
| 0.0980 | 0.0978 43210 | 0.9952 01842 | 0.0981 56941 | 1.0048 05844 |
| .0981  | .0979 42730  | .9951 92053  | .0982 57422  | .0048 15665  |
| .0982  | .0980 42248  | .9951 82253  | .0983 57904  | .0048 25496  |
| .0983  | .0981 41766  | .9951 72444  | .0984 58387  | .0048 35337  |
| .0984  | .0982 41283  | .9951 62625  | .0985 58871  | .0048 45188  |
| 0.0985 | 0.0983 40799 | 0.9951 52796 | 0.0986 59356 | 1.0048 55049 |
| .0986  | .0984 40313  | .9951 42957  | .0987 59842  | .0048 64919  |
| .0987  | .0985 39827  | .9951 33108  | .0988 60329  | .0048 74800  |
| .0988  | .0986 39340  | .9951 23249  | .0989 60817  | .0048 84692  |
| .0989  | .0987 38852  | .9951 13380  | .0990 61306  | .0048 94593  |
| 0.0990 | 0.0988 38363 | 0.9951 03501 | 0.0991 61796 | 1.0049 04504 |
| .0991  | .0989 37873  | .9950 93612  | .0992 62287  | .0049 14425  |
| .0992  | .0990 37381  | .9950 83714  | .0993 62779  | .0049 24356  |
| .0993  | .0991 36889  | .9950 73805  | .0994 63272  | .0049 34298  |
| .0994  | .0992 36396  | .9950 63886  | .0995 63766  | .0049 44249  |
| 0.0995 | 0.0993 35902 | 0.9950 53958 | 0.0996 64260 | 1.0049 54210 |
| .0996  | .0994 35407  | .9950 44019  | .0997 64756  | .0049 64182  |
| .0997  | .0995 34911  | .9950 34071  | .0998 65253  | .0049 74163  |
| .0998  | .0996 34414  | .9950 24112  | .0999 65751  | .0049 84155  |
| .0999  | .0997 33916  | .9950 14144  | .1000 66250  | .0049 94156  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.1000 | 0.0998 33417 | 0.9950 04165 | 0.1001 66750 | 1.0050 04168 |
| .1001  | .0999 32917  | .9949 94177  | .1002 67251  | .0050 14190  |
| .1002  | .1000 32415  | .9949 84179  | .1003 67753  | .0050 24222  |
| .1003  | .1001 31913  | .9949 74170  | .1004 68256  | .0050 34263  |
| .1004  | .1002 31410  | .9949 64152  | .1005 68760  | .0050 44315  |
| 0.1005 | 0.1003 30906 | 0.9949 54124 | 0.1006 69265 | 1.0050 54377 |
| .1006  | .1004 30401  | .9949 44086  | .1007 69771  | .0050 64449  |
| .1007  | .1005 29895  | .9949 34038  | .1008 70278  | .0050 74531  |
| .1008  | .1006 29388  | .9949 23990  | .1009 70785  | .0050 84623  |
| .1009  | .1007 28880  | .9949 13912  | .1010 71294  | .0050 94725  |
| 0.1010 | 0.1008 28371 | 0.9949 03834 | 0.1011 71804 | 1.0051 04837 |
| .1011  | .1009 27861  | .9948 93747  | .1012 72315  | .0051 14960  |
| .1012  | .1010 27349  | .9948 83649  | .1013 72827  | .0051 25092  |
| .1013  | .1011 26837  | .9948 73541  | .1014 73340  | .0051 35234  |
| .1014  | .1012 26324  | .9948 63423  | .1015 73854  | .0051 45386  |
| 0.1015 | 0.1013 25810 | 0.9948 53296 | 0.1016 74370 | 1.0051 55549 |
| .1016  | .1014 25295  | .9948 43158  | .1017 74886  | .0051 65721  |
| .1017  | .1015 24779  | .9948 33011  | .1018 75403  | .0051 75904  |
| .1018  | .1016 24261  | .9948 22853  | .1019 75921  | .0051 86096  |
| .1019  | .1017 23743  | .9948 12686  | .1020 76440  | .0051 96299  |
| 0.1020 | 0.1018 23224 | 0.9948 02509 | 0.1021 76960 | 1.0052 06512 |
| .1021  | .1019 22704  | .9947 92321  | .1022 77481  | .0052 16734  |
| .1022  | .1020 22182  | .9947 82124  | .1023 78003  | .0052 26967  |
| .1023  | .1021 21660  | .9947 71917  | .1024 78527  | .0052 37210  |
| .1024  | .1022 21137  | .9947 61700  | .1025 79051  | .0052 47463  |
| 0.1025 | 0.1023 20612 | 0.9947 51473 | 0.1026 79576 | 1.0052 57726 |
| .1026  | .1024 20087  | .9947 41236  | .1027 80102  | .0052 67999  |
| .1027  | .1025 19561  | .9947 30989  | .1028 80630  | .0052 78282  |
| .1028  | .1026 19033  | .9947 20732  | .1029 81158  | .0052 88575  |
| .1029  | .1027 18505  | .9947 10465  | .1030 81687  | .0052 98878  |
| 0.1030 | 0.1028 17975 | 0.9947 00188 | 0.1031 82218 | 1.0053 09191 |
| .1031  | .1029 17445  | .9946 89901  | .1032 82749  | .0053 19515  |
| .1032  | .1030 16913  | .9946 79604  | .1033 83282  | .0053 29848  |
| .1033  | .1031 16381  | .9946 69298  | .1034 83815  | .0053 40191  |
| .1034  | .1032 15847  | .9946 58981  | .1035 84350  | .0053 50545  |
| 0.1035 | 0.1033 15313 | 0.9946 48655 | 0.1036 84885 | 1.0053 60908 |
| .1036  | .1034 14777  | .9946 38318  | .1037 85422  | .0053 71282  |
| .1037  | .1035 14240  | .9946 27972  | .1038 85960  | .0053 81665  |
| .1038  | .1036 13703  | .9946 17615  | .1039 86498  | .0053 92059  |
| .1039  | .1037 13164  | .9946 07249  | .1040 87038  | .0054 02462  |
| 0.1040 | 0.1038 12624 | 0.9945 96873 | 0.1041 87579 | 1.0054 12876 |
| .1041  | .1039 12083  | .9945 86486  | .1042 88121  | .0054 23300  |
| .1042  | .1040 11541  | .9945 76090  | .1043 88663  | .0054 33734  |
| .1043  | .1041 10998  | .9945 65684  | .1044 89207  | .0054 44178  |
| .1044  | .1042 10454  | .9945 55268  | .1045 89752  | .0054 54632  |
| 0.1045 | 0.1043 09909 | 0.9945 44842 | 0.1046 90298 | 1.0054 65096 |
| .1046  | .1044 09363  | .9945 34406  | .1047 90845  | .0054 75570  |
| .1047  | .1045 08816  | .9945 23960  | .1048 91393  | .0054 86054  |
| .1048  | .1046 08268  | .9945 13504  | .1049 91942  | .0054 96548  |
| .1049  | .1047 07719  | .9945 03038  | .1050 92493  | .0055 07052  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.1050 | 0.1048 07169 | 0.9944 92563 | 0.1051 93044 | 1.0055 17566 |
| .1051  | .1049 06618  | .9944 82077  | .1052 93596  | .0055 28001  |
| .1052  | .1050 06065  | .9944 71581  | .1053 94150  | .0055 38625  |
| .1053  | .1051 05512  | .9944 61076  | .1054 94704  | .0055 49170  |
| .1054  | .1052 04957  | .9944 50560  | .1055 95259  | .0055 59724  |
| 0.1055 | 0.1053 04402 | 0.9944 40035 | 0.1056 95816 | 1.0055 70289 |
| .1056  | .1054 03845  | .9944 29499  | .1057 96373  | .0055 80863  |
| .1057  | .1055 03288  | .9944 18954  | .1058 96932  | .0055 91448  |
| .1058  | .1056 02729  | .9944 08399  | .1059 97492  | .0056 02043  |
| .1059  | .1057 02170  | .9943 97834  | .1060 98052  | .0056 12647  |
| 0.1060 | 0.1058 01609 | 0.9943 87258 | 0.1061 98614 | 1.0056 23262 |
| .1061  | .1059 01047  | .9943 76673  | .1062 99177  | .0056 33887  |
| .1062  | .1060 00484  | .9943 66078  | .1063 99741  | .0056 44522  |
| .1063  | .1060 99920  | .9943 55473  | .1064 00306  | .0056 55167  |
| .1064  | .1061 99355  | .9943 44858  | .1066 00872  | .0056 65822  |
| 0.1065 | 0.1062 98789 | 0.9943 34233 | 0.1067 01439 | 1.0056 76487 |
| .1066  | .1063 98222  | .9943 23598  | .1068 02007  | .0056 87162  |
| .1067  | .1064 97654  | .9943 12954  | .1069 02577  | .0056 97848  |
| .1068  | .1065 97085  | .9943 02299  | .1070 03147  | .0057 08543  |
| .1069  | .1066 96514  | .9942 91634  | .1071 03718  | .0057 19248  |
| 0.1070 | 0.1067 95943 | 0.9942 80960 | 0.1072 04291 | 1.0057 29964 |
| .1071  | .1068 95371  | .9942 70275  | .1073 04864  | .0057 40689  |
| .1072  | .1069 94797  | .9942 59580  | .1074 05439  | .0057 51425  |
| .1073  | .1070 94222  | .9942 48876  | .1075 06015  | .0057 62170  |
| .1074  | .1071 93647  | .9942 38162  | .1076 06591  | .0057 72926  |
| 0.1075 | 0.1072 93070 | 0.9942 27437 | 0.1077 07169 | 1.0057 83692 |
| .1076  | .1073 92492  | .9942 16703  | .1078 07748  | .0057 94467  |
| .1077  | .1074 91913  | .9942 05959  | .1079 08328  | .0058 05253  |
| .1078  | .1075 91334  | .9941 95205  | .1080 08909  | .0058 16049  |
| .1079  | .1076 90753  | .9941 84441  | .1081 09491  | .0058 26855  |
| 0.1080 | 0.1077 90170 | 0.9941 73667 | 0.1082 10074 | 1.0058 37671 |
| .1081  | .1078 89587  | .9941 62883  | .1083 10659  | .0058 48407  |
| .1082  | .1079 89003  | .9941 52089  | .1084 11244  | .0058 59333  |
| .1083  | .1080 88418  | .9941 41285  | .1085 11831  | .0058 70179  |
| .1084  | .1081 87831  | .9941 30471  | .1086 12418  | .0058 81035  |
| 0.1085 | 0.1082 87244 | 0.9941 19647 | 0.1087 13007 | 1.0058 91902 |
| .1086  | .1083 86655  | .9941 08813  | .1088 13597  | .0059 02778  |
| .1087  | .1084 86066  | .9940 97970  | .1089 14187  | .0059 13664  |
| .1088  | .1085 85475  | .9940 87116  | .1090 14779  | .0059 24561  |
| .1089  | .1086 84883  | .9940 76253  | .1091 15372  | .0059 35467  |
| 0.1090 | 0.1087 84290 | 0.9940 65379 | 0.1092 15966 | 1.0059 46384 |
| .1091  | .1088 83696  | .9940 54496  | .1093 16562  | .0059 57311  |
| .1092  | .1089 83101  | .9940 43603  | .1094 17158  | .0059 68247  |
| .1093  | .1090 82501  | .9940 32699  | .1095 17755  | .0059 79194  |
| .1094  | .1091 81907  | .9940 21786  | .1096 18354  | .0059 90151  |
| 0.1095 | 0.1092 81309 | 0.9940 10863 | 0.1097 18953 | 1.0060 01118 |
| .1096  | .1093 80710  | .9939 99930  | .1098 19554  | .0060 12095  |
| .1097  | .1094 80109  | .9939 88987  | .1099 20156  | .0060 23082  |
| .1098  | .1095 79507  | .9939 78034  | .1100 20759  | .0060 34079  |
| .1099  | .1096 78905  | .9939 67071  | .1101 21363  | .0060 45086  |

|        | SIN X       | COS X       | SIN X  | COS X       |
|--------|-------------|-------------|--------|-------------|
| C.1100 | .1100 75231 | .9939 55898 | C.1102 | .1102 75236 |
| .1101  | .1101 75236 | .9939 55898 | .1103  | .1103 75241 |
| .1102  | .1102 75241 | .9939 55898 | .1104  | .1104 75246 |
| .1103  | .1103 75246 | .9939 55898 | .1105  | .1105 75251 |
| .1104  | .1104 75251 | .9939 55898 | .1106  | .1106 75256 |
| C.1105 | .1105 75265 | .9939 01085 | C.1107 | .1107 25009 |
| .1106  | .1106 75265 | .9938 90052 | .1108  | .1108 25621 |
| .1107  | .1107 74043 | .9938 79010 | .1109  | .1109 26234 |
| .1108  | .1108 73431 | .9938 67957 | .1110  | .1110 26848 |
| .1109  | .1109 72817 | .9938 56895 | .1111  | .1111 27463 |
| C.1110 | .1110 72202 | .9938 45823 | C.1112 | .1112 28079 |
| .1111  | .1111 71586 | .9938 34741 | .1113  | .1113 28696 |
| .1112  | .1112 70969 | .9938 23648 | .1114  | .1114 29315 |
| .1113  | .1113 70351 | .9938 12546 | .1115  | .1115 29934 |
| .1114  | .1114 69731 | .9938 01434 | .1116  | .1116 30555 |
| C.1115 | .1115 69111 | .9937 90312 | C.1117 | .1117 31176 |
| .1116  | .1116 68489 | .9937 79180 | .1118  | .1118 31799 |
| .1117  | .1117 67867 | .9937 68039 | .1119  | .1119 32423 |
| .1118  | .1118 67243 | .9937 56887 | .1120  | .1120 33048 |
| .1119  | .1119 66618 | .9937 45725 | .1121  | .1121 33674 |
| C.1120 | .1120 65992 | .9937 34554 | C.1122 | .1122 34302 |
| .1121  | .1121 65365 | .9937 23372 | .1123  | .1123 34930 |
| .1122  | .1122 64737 | .9937 12181 | .1124  | .1124 35560 |
| .1123  | .1123 64107 | .9937 00979 | .1125  | .1125 36190 |
| .1124  | .1124 63477 | .9936 89768 | .1126  | .1126 36822 |
| C.1125 | .1125 62845 | .9936 78546 | C.1127 | .1127 37455 |
| .1126  | .1126 62213 | .9936 67315 | .1128  | .1128 38089 |
| .1127  | .1127 61579 | .9936 56074 | .1129  | .1129 38724 |
| .1128  | .1128 60944 | .9936 44823 | .1130  | .1130 39360 |
| .1129  | .1129 60308 | .9936 33568 | .1131  | .1131 39998 |
| C.1130 | .1130 59671 | .9936 22291 | C.1132 | .1132 40636 |
| .1131  | .1131 59032 | .9936 11010 | .1133  | .1133 41276 |
| .1132  | .1132 58393 | .9935 99719 | .1134  | .1134 41917 |
| .1133  | .1133 57752 | .9935 88418 | .1135  | .1135 42559 |
| .1134  | .1134 57111 | .9935 77107 | .1136  | .1136 43202 |
| C.1135 | .1135 56468 | .9935 65787 | C.1137 | .1137 43846 |
| .1136  | .1136 55824 | .9935 54456 | .1138  | .1138 44492 |
| .1137  | .1137 55179 | .9935 43116 | .1139  | .1139 45138 |
| .1138  | .1138 54532 | .9935 31765 | .1140  | .1140 45786 |
| .1139  | .1139 53885 | .9935 20405 | .1141  | .1141 46435 |
| C.1140 | .1140 53236 | .9935 09034 | C.1142 | .1142 47085 |
| .1141  | .1141 52587 | .9934 97654 | .1143  | .1143 47736 |
| .1142  | .1142 51938 | .9934 86264 | .1144  | .1144 48388 |
| .1143  | .1143 51284 | .9934 74864 | .1145  | .1145 49041 |
| .1144  | .1144 50631 | .9934 63454 | .1146  | .1146 49696 |
| C.1145 | .1145 49977 | .9934 52033 | C.1147 | .1147 50351 |
| .1146  | .1146 49321 | .9934 40604 | .1148  | .1148 51008 |
| .1147  | .1147 48665 | .9934 29164 | .1149  | .1149 51666 |
| .1148  | .1148 48007 | .9934 17714 | .1150  | .1150 52325 |
| .1149  | .1149 47348 | .9934 06254 | .1151  | .1151 52985 |

| x     | sin x  | cos x        | sinn x       | cos           |
|-------|--------|--------------|--------------|---------------|
| .1147 | .46686 | .99338 94784 | .11152 53647 | .1.0066 19991 |
| .1148 | .46927 | .99338 83305 | .11153 54309 | .0066 51321   |
| .1149 | .47165 | .99338 71815 | .11154 54973 | .0066 42852   |
| .1150 | .47402 | .99338 60316 | .11155 55638 | .0066 54412   |
| .1151 | .47637 | .99338 48806 | .11156 56304 | .0066 65973   |
| .1152 | .47871 | .99338 37287 | .11157 56971 | .1.0066 77543 |
| .1153 | .48105 | .99338 25757 | .11158 57639 | .0066 89124   |
| .1154 | .48337 | .99338 14218 | .11159 58309 | .0067 00715   |
| .1155 | .48567 | .99338 02689 | .11160 58980 | .0067 12316   |
| .1156 | .48797 | .99338 91110 | .11161 59651 | .0067 23927   |
| .1157 | .49026 | .99338 79541 | .11162 60324 | .1.0067 35548 |
| .1158 | .49253 | .99338 67962 | .11163 60999 | .0067 47179   |
| .1159 | .49479 | .99338 56373 | .11164 61674 | .0067 58820   |
| .1160 | .49704 | .99338 44774 | .11165 62350 | .0067 70471   |
| .1161 | .49928 | .99338 33165 | .11166 63028 | .0067 82132   |
| .1162 | .50151 | .99338 21547 | .11167 63707 | .1.0067 93804 |
| .1163 | .50372 | .99338 09918 | .11168 64387 | .0068 05485   |
| .1164 | .50593 | .99338 98280 | .11169 65068 | .0068 17177   |
| .1165 | .50812 | .99338 86651 | .11170 65750 | .0068 28878   |
| .1166 | .51030 | .99338 74973 | .11171 66434 | .0068 40590   |
| .1167 | .51247 | .99338 63304 | .11172 67118 | .1.0068 52311 |
| .1168 | .51463 | .99338 51626 | .11173 67804 | .0068 64043   |
| .1169 | .51677 | .99338 39958 | .11174 68491 | .0068 75785   |
| .1170 | .51891 | .99338 28240 | .11175 69179 | .0068 87537   |
| .1171 | .52103 | .99338 16532 | .11176 69869 | .0068 99299   |
| .1172 | .52314 | .99338 04814 | .11177 70559 | .1.0069 11071 |
| .1173 | .52524 | .99338 93086 | .11178 71251 | .0069 22853   |
| .1174 | .52733 | .99338 81348 | .11179 71944 | .0069 34645   |
| .1175 | .52940 | .99338 69600 | .11180 72638 | .0069 46447   |
| .1176 | .53147 | .99338 57842 | .11181 73333 | .0069 58260   |
| .1177 | .53352 | .99338 46074 | .11182 74029 | .1.0069 70082 |
| .1178 | .53556 | .99338 34297 | .11183 74727 | .0069 81914   |
| .1179 | .53759 | .99338 22509 | .11184 75426 | .0069 93757   |
| .1180 | .53960 | .99338 10712 | .11185 76126 | .0070 05610   |
| .1181 | .54161 | .99338 98905 | .11186 76827 | .0070 17472   |
| .1182 | .54360 | .99338 87087 | .11187 77529 | .1.0070 29345 |
| .1183 | .54558 | .99338 75260 | .11188 78233 | .0070 41228   |
| .1184 | .54755 | .99338 63423 | .11189 78937 | .0070 53121   |
| .1185 | .54951 | .99338 51576 | .11190 79643 | .0070 65023   |
| .1186 | .55146 | .99338 39719 | .11191 80350 | .0070 76936   |
| .1187 | .55340 | .99338 27852 | .11192 81059 | .1.0070 88860 |
| .1188 | .55533 | .99338 15975 | .11193 81768 | .0071 00793   |
| .1189 | .55725 | .99338 04088 | .11194 82479 | .0071 12736   |
| .1190 | .55916 | .99338 92191 | .11195 83191 | .0071 24689   |
| .1191 | .56106 | .99338 80284 | .11196 83904 | .0071 36653   |
| .1192 | .56295 | .99338 68369 | .11197 84618 | .1.0071 48626 |
| .1193 | .56483 | .99338 56441 | .11198 85334 | .0071 60609   |
| .1194 | .56670 | .99338 44505 | .11199 86050 | .0071 72603   |
| .1195 | .56856 | .99338 32558 | .1200 86768  | .0071 84607   |
| .1196 | .57041 | .99338 20602 | .1201 87487  | .0071 96620   |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.1200 | 0.1197 12207 | 0.9928 08636 | 0.1202 88207 | 1.0072 08644 |
| .1201  | .1198 11488  | .9927 96660  | .1203 88929  | .0072 20678  |
| .1202  | .1199 10767  | .9927 84674  | .1204 89652  | .0072 32722  |
| .1203  | .1200 10044  | .9927 72678  | .1205 90375  | .0072 44776  |
| .1204  | .1201 09321  | .9927 60672  | .1206 91101  | .0072 56840  |
| 0.1205 | 0.1202 08597 | 0.9927 48656 | 0.1207 91827 | 1.0072 68914 |
| .1206  | .1203 07871  | .9927 36630  | .1208 92554  | .0072 80998  |
| .1207  | .1204 07144  | .9927 24594  | .1209 93283  | .0072 93093  |
| .1208  | .1205 06416  | .9927 12548  | .1210 94013  | .0073 05197  |
| .1209  | .1206 05686  | .9927 00493  | .1211 94744  | .0073 17311  |
| 0.1210 | 0.1207 04956 | 0.9926 88427 | 0.1212 95476 | 1.0073 29436 |
| .1211  | .1208 04224  | .9926 76352  | .1213 96210  | .0073 41571  |
| .1212  | .1209 03491  | .9926 64266  | .1214 96945  | .0073 53715  |
| .1213  | .1210 02757  | .9926 52171  | .1215 97681  | .0073 65870  |
| .1214  | .1211 02022  | .9926 40066  | .1216 98418  | .0073 78035  |
| 0.1215 | 0.1212 01285 | 0.9926 27951 | 0.1217 99156 | 1.0073 90210 |
| .1216  | .1213 00547  | .9926 15826  | .1218 99896  | .0074 02395  |
| .1217  | .1213 99808  | .9926 03691  | .1220 00637  | .0074 14590  |
| .1218  | .1214 99068  | .9925 91546  | .1221 01379  | .0074 26795  |
| .1219  | .1215 98326  | .9925 79391  | .1222 02122  | .0074 39010  |
| 0.1220 | 0.1216 97584 | 0.9925 67226 | 0.1223 02867 | 1.0074 51235 |
| .1221  | .1217 96840  | .9925 55051  | .1224 03612  | .0074 63470  |
| .1222  | .1218 96095  | .9925 42867  | .1225 04359  | .0074 75716  |
| .1223  | .1219 95348  | .9925 30672  | .1226 05108  | .0074 87971  |
| .1224  | .1220 94601  | .9925 18468  | .1227 05857  | .0075 00237  |
| 0.1225 | 0.1221 93852 | 0.9925 06253 | 0.1228 06608 | 1.0075 12513 |
| .1226  | .1222 93102  | .9924 94029  | .1229 07359  | .0075 24798  |
| .1227  | .1223 92351  | .9924 81795  | .1230 08113  | .0075 37094  |
| .1228  | .1224 91599  | .9924 69550  | .1231 08867  | .0075 49400  |
| .1229  | .1225 90845  | .9924 57296  | .1232 09622  | .0075 61716  |
| 0.1230 | 0.1226 90090 | 0.9924 45032 | 0.1233 10379 | 1.0075 74042 |
| .1231  | .1227 89334  | .9924 32758  | .1234 11137  | .0075 86378  |
| .1232  | .1228 88577  | .9924 20474  | .1235 11896  | .0075 98724  |
| .1233  | .1229 87818  | .9924 08180  | .1236 12657  | .0076 11080  |
| .1234  | .1230 87058  | .9923 95877  | .1237 13419  | .0076 23447  |
| 0.1235 | 0.1231 86297 | 0.9923 83563 | 0.1238 14182 | 1.0076 35823 |
| .1236  | .1232 85535  | .9923 71239  | .1239 14946  | .0076 48209  |
| .1237  | .1233 84771  | .9923 58906  | .1240 15711  | .0076 60606  |
| .1238  | .1234 84007  | .9923 46562  | .1241 16478  | .0076 73012  |
| .1239  | .1235 83241  | .9923 34209  | .1242 17246  | .0076 85429  |
| 0.1240 | 0.1236 82474 | 0.9923 21846 | 0.1243 18015 | 1.0076 97856 |
| .1241  | .1237 81705  | .9923 09473  | .1244 18785  | .0077 10293  |
| .1242  | .1238 80935  | .9922 97090  | .1245 19557  | .0077 22740  |
| .1243  | .1239 80165  | .9922 84696  | .1246 20330  | .0077 35197  |
| .1244  | .1240 79392  | .9922 72293  | .1247 21104  | .0077 47664  |
| 0.1245 | 0.1241 78619 | 0.9922 59881 | 0.1248 21880 | 1.0077 60141 |
| .1246  | .1242 77844  | .9922 47458  | .1249 22656  | .0077 72628  |
| .1247  | .1243 77068  | .9922 35025  | .1250 23434  | .0077 85125  |
| .1248  | .1244 76291  | .9922 22582  | .1251 24213  | .0077 97633  |
| .1249  | .1245 75513  | .9922 10130  | .1252 24994  | .0078 10150  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.1250 | 0.1246 74733 | 0.9921 97667 | 0.1253 25775 | 1.0078 12473 |
| .1251  | .1247 73953  | .9921 85195  | .1254 26550  | .0078 55315  |
| .1252  | .1248 73170  | .9921 72712  | .1255 27342  | .0078 47703  |
| .1253  | .1249 72387  | .9921 60220  | .1256 28128  | .0078 60321  |
| .1254  | .1250 71602  | .9921 47718  | .1257 28914  | .0078 71339  |
| 0.1255 | 0.1251 70817 | 0.9921 35206 | 0.1258 29702 | 1.0078 81467 |
| .1256  | .1252 70030  | .9921 22684  | .1259 30491  | .0078 98055  |
| .1257  | .1253 69241  | .9921 10152  | .1260 31282  | .0079 10683  |
| .1258  | .1254 68452  | .9920 97610  | .1261 32074  | .0079 23361  |
| .1259  | .1255 67661  | .9920 85058  | .1262 32867  | .0079 25279  |
| 0.1260 | 0.1256 66869 | 0.9920 72496 | 0.1263 33661 | 1.0079 48508 |
| .1261  | .1257 66075  | .9920 59925  | .1264 34456  | .0079 61146  |
| .1262  | .1258 65281  | .9920 47343  | .1265 35253  | .0079 73794  |
| .1263  | .1259 64485  | .9920 34752  | .1266 36051  | .0079 86453  |
| .1264  | .1260 63687  | .9920 22150  | .1267 36850  | .0079 99132  |
| 0.1265 | 0.1261 62889 | 0.9920 09539 | 0.1268 37651 | 1.0080 11800 |
| .1266  | .1262 62089  | .9919 96918  | .1269 38453  | .0080 24489  |
| .1267  | .1263 61288  | .9919 84287  | .1270 39256  | .0080 37188  |
| .1268  | .1264 60486  | .9919 71645  | .1271 40060  | .0080 49897  |
| .1269  | .1265 59683  | .9919 58994  | .1272 40866  | .0080 62615  |
| 0.1270 | 0.1266 58878 | 0.9919 46334 | 0.1273 41673 | 1.0080 75345 |
| .1271  | .1267 58072  | .9919 33663  | .1274 42481  | .0080 88084  |
| .1272  | .1268 57265  | .9919 20982  | .1275 43290  | .0081 00834  |
| .1273  | .1269 56456  | .9919 08291  | .1276 44101  | .0081 13593  |
| .1274  | .1270 55646  | .9918 95591  | .1277 44913  | .0081 26363  |
| 0.1275 | 0.1271 54835 | 0.9918 82880 | 0.1278 45726 | 1.0081 39142 |
| .1276  | .1272 54023  | .9918 70160  | .1279 46541  | .0081 51931  |
| .1277  | .1273 53209  | .9918 57429  | .1280 47357  | .0081 64731  |
| .1278  | .1274 52394  | .9918 44689  | .1281 48174  | .0081 77541  |
| .1279  | .1275 51578  | .9918 31939  | .1282 48992  | .0081 90361  |
| 0.1280 | 0.1276 50761 | 0.9918 19179 | 0.1283 49812 | 1.0082 03191 |
| .1281  | .1277 49942  | .9918 06409  | .1284 50633  | .0082 16031  |
| .1282  | .1278 49122  | .9917 93629  | .1285 51455  | .0082 28881  |
| .1283  | .1279 48301  | .9917 80839  | .1286 52279  | .0082 41741  |
| .1284  | .1280 47478  | .9917 68039  | .1287 53103  | .0082 54612  |
| 0.1285 | 0.1281 46654 | 0.9917 55229 | 0.1288 53929 | 1.0082 67492 |
| .1286  | .1282 45829  | .9917 42410  | .1289 54757  | .0082 80382  |
| .1287  | .1283 45003  | .9917 29580  | .1290 55586  | .0082 93283  |
| .1288  | .1284 44175  | .9917 16741  | .1291 56415  | .0083 06193  |
| .1289  | .1285 43346  | .9917 03891  | .1292 57247  | .0083 19114  |
| 0.1290 | 0.1286 42516 | 0.9916 91032 | 0.1293 58079 | 1.0083 32045 |
| .1291  | .1287 41685  | .9916 78163  | .1294 58913  | .0083 44966  |
| .1292  | .1288 40852  | .9916 65284  | .1295 59748  | .0083 57937  |
| .1293  | .1289 40018  | .9916 52395  | .1296 60585  | .0083 70898  |
| .1294  | .1290 39182  | .9916 39496  | .1297 61422  | .0083 83869  |
| 0.1295 | 0.1291 38345 | 0.9916 26507 | 0.1298 62262 | 1.0083 96850 |
| .1296  | .1292 37508  | .9916 13668  | .1299 63102  | .0084 09841  |
| .1297  | .1293 36668  | .9916 00739  | .1300 63943  | .0084 22843  |
| .1298  | .1294 35828  | .9915 87801  | .1301 64786  | .0084 35854  |
| .1299  | .1295 34986  | .9915 74852  | .1302 65631  | .0084 48876  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.1300 | 0.1296 34143 | 0.9915 61894 | 0.1303 66476 | 1.0084 61907 |
| .1301  | .1297 33298  | .9915 48925  | .1304 67323  | .0084 74949  |
| .1302  | .1298 32452  | .9915 35947  | .1305 68171  | .0084 88001  |
| .1303  | .1299 31605  | .9915 22959  | .1306 69021  | .0085 01062  |
| .1304  | .1300 30757  | .9915 09961  | .1307 69871  | .0085 14134  |
| 0.1305 | 0.1301 29907 | 0.9914 96953 | 0.1308 70723 | 1.0085 27216 |
| .1306  | .1302 29056  | .9914 83935  | .1309 71577  | .0085 40309  |
| .1307  | .1303 28204  | .9914 70907  | .1310 72432  | .0085 53411  |
| .1308  | .1304 27351  | .9914 57869  | .1311 73288  | .0085 66523  |
| .1309  | .1305 26496  | .9914 44821  | .1312 74145  | .0085 79645  |
| 0.1310 | 0.1306 25640 | 0.9914 31764 | 0.1313 75003 | 1.0085 92778 |
| .1311  | .1307 24782  | .9914 18696  | .1314 75863  | .0086 05920  |
| .1312  | .1308 23923  | .9914 05619  | .1315 76725  | .0086 19073  |
| .1313  | .1309 23063  | .9913 92532  | .1316 77587  | .0086 32236  |
| .1314  | .1310 22202  | .9913 79434  | .1317 78451  | .0086 45409  |
| 0.1315 | 0.1311 21339 | 0.9913 66327 | 0.1318 79316 | 1.0086 58591 |
| .1316  | .1312 20475  | .9913 53210  | .1319 80183  | .0086 71784  |
| .1317  | .1313 19610  | .9913 40083  | .1320 81051  | .0086 84987  |
| .1318  | .1314 18743  | .9913 26946  | .1321 81920  | .0086 98201  |
| .1319  | .1315 17875  | .9913 13799  | .1322 82790  | .0087 11424  |
| 0.1320 | 0.1316 17006 | 0.9913 00642 | 0.1323 83662 | 1.0087 24657 |
| .1321  | .1317 16135  | .9912 87476  | .1324 84535  | .0087 37901  |
| .1322  | .1318 15263  | .9912 74299  | .1325 85410  | .0087 51154  |
| .1323  | .1319 14390  | .9912 61113  | .1326 86285  | .0087 64418  |
| .1324  | .1320 13516  | .9912 47916  | .1327 87163  | .0087 77691  |
| 0.1325 | 0.1321 12640 | 0.9912 34710 | 0.1328 88041 | 1.0087 90975 |
| .1326  | .1322 11762  | .9912 21494  | .1329 88921  | .0088 04269  |
| .1327  | .1323 10884  | .9912 08268  | .1330 89802  | .0088 17573  |
| .1328  | .1324 10004  | .9911 95032  | .1331 90684  | .0088 30837  |
| .1329  | .1325 09123  | .9911 81786  | .1332 91568  | .0088 44211  |
| 0.1330 | 0.1326 08240 | 0.9911 68530 | 0.1333 92453 | 1.0088 57545 |
| .1331  | .1327 07357  | .9911 55264  | .1334 93340  | .0088 70890  |
| .1332  | .1328 06472  | .9911 41988  | .1335 94227  | .0088 84244  |
| .1333  | .1329 05585  | .9911 28703  | .1336 95116  | .0088 97608  |
| .1334  | .1330 04697  | .9911 15407  | .1337 96007  | .0089 10983  |
| 0.1335 | 0.1331 03808 | 0.9911 02102 | 0.1338 96899 | 1.0089 24368 |
| .1336  | .1332 02918  | .9910 88786  | .1339 97792  | .0089 37762  |
| .1337  | .1333 02026  | .9910 75461  | .1340 98686  | .0089 51167  |
| .1338  | .1334 01133  | .9910 62126  | .1341 99582  | .0089 64582  |
| .1339  | .1335 00238  | .9910 48781  | .1343 00479  | .0089 78007  |
| 0.1340 | 0.1335 99343 | 0.9910 35426 | 0.1344 01378 | 1.0089 91442 |
| .1341  | .1336 98445  | .9910 22061  | .1345 02277  | .0090 04887  |
| .1342  | .1337 97547  | .9910 08686  | .1346 03178  | .0090 18343  |
| .1343  | .1338 96647  | .9909 95302  | .1347 04081  | .0090 31808  |
| .1344  | .1339 95746  | .9909 81907  | .1348 04985  | .0090 45283  |
| 0.1345 | 0.1340 94844 | 0.9909 68502 | 0.1349 05890 | 1.0090 58769 |
| .1346  | .1341 93940  | .9909 55088  | .1350 06797  | .0090 72265  |
| .1347  | .1342 93035  | .9909 41664  | .1351 07705  | .0090 85770  |
| .1348  | .1343 92128  | .9909 28229  | .1352 08614  | .0090 99286  |
| .1349  | .1344 91220  | .9909 14785  | .1353 09524  | .0091 12812  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.1350 | 0.1345 90311 | 0.9909 01331 | 0.1354 10436 | 1.0091 26348 |
| .1351  | .1346 89400  | .9908 87867  | .1355 11350  | .0091 39394  |
| .1352  | .1347 88489  | .9908 74393  | .1356 12264  | .0091 53450  |
| .1353  | .1348 87575  | .9908 60910  | .1357 13180  | .0091 67017  |
| .1354  | .1349 86661  | .9908 47416  | .1358 14098  | .0091 80593  |
| 0.1355 | 0.1350 85745 | 0.9908 33912 | 0.1359 15016 | 1.0091 94179 |
| .1356  | .1351 84828  | .9908 20399  | .1360 15937  | .0092 07776  |
| .1357  | .1352 83909  | .9908 06875  | .1361 16858  | .0092 21383  |
| .1358  | .1353 82989  | .9907 93342  | .1362 17781  | .0092 34999  |
| .1359  | .1354 82068  | .9907 79799  | .1363 18705  | .0092 48626  |
| 0.1360 | 0.1355 81145 | 0.9907 66245 | 0.1364 19631 | 1.0092 62263 |
| .1361  | .1356 80221  | .9907 52682  | .1365 20557  | .0092 75910  |
| .1362  | .1357 79295  | .9907 39109  | .1366 21486  | .0092 89567  |
| .1363  | .1358 78369  | .9907 25527  | .1367 22415  | .0093 03234  |
| .1364  | .1359 77441  | .9907 11934  | .1368 23346  | .0093 16912  |
| 0.1365 | 0.1360 76511 | 0.9906 98331 | 0.1369 24279 | 1.0093 30599 |
| .1366  | .1361 75580  | .9906 84718  | .1370 25213  | .0093 44296  |
| .1367  | .1362 74648  | .9906 71096  | .1371 26148  | .0093 58004  |
| .1368  | .1363 73714  | .9906 57464  | .1372 27084  | .0093 71722  |
| .1369  | .1364 72779  | .9906 43821  | .1373 28022  | .0093 85449  |
| 0.1370 | 0.1365 71843 | 0.9906 30169 | 0.1374 28961 | 1.0093 99187 |
| .1371  | .1366 70906  | .9906 16507  | .1375 29902  | .0094 12935  |
| .1372  | .1367 69966  | .9906 02835  | .1376 30844  | .0094 26693  |
| .1373  | .1368 69026  | .9905 89153  | .1377 31787  | .0094 40461  |
| .1374  | .1369 68084  | .9905 75461  | .1378 32732  | .0094 54240  |
| 0.1375 | 0.1370 67141 | 0.9905 61759 | 0.1379 33678 | 1.0094 68028 |
| .1376  | .1371 66197  | .9905 48048  | .1380 34625  | .0094 81826  |
| .1377  | .1372 65251  | .9905 34326  | .1381 35574  | .0094 95635  |
| .1378  | .1373 64304  | .9905 20594  | .1382 36525  | .0095 09454  |
| .1379  | .1374 63355  | .9905 06853  | .1383 37476  | .0095 23282  |
| 0.1380 | 0.1375 62405 | 0.9904 93102 | 0.1384 38429 | 1.0095 37121 |
| .1381  | .1376 61454  | .9904 79341  | .1385 39384  | .0095 50970  |
| .1382  | .1377 60501  | .9904 65570  | .1386 40339  | .0095 64829  |
| .1383  | .1378 59547  | .9904 51789  | .1387 41297  | .0095 78698  |
| .1384  | .1379 58591  | .9904 37998  | .1388 42255  | .0095 92577  |
| 0.1385 | 0.1380 57634 | 0.9904 24197 | 0.1389 43215 | 1.0096 06466 |
| .1386  | .1381 56676  | .9904 10386  | .1390 44176  | .0096 20366  |
| .1387  | .1382 55716  | .9903 96565  | .1391 45139  | .0096 34275  |
| .1388  | .1383 54755  | .9903 82735  | .1392 46103  | .0096 48195  |
| .1389  | .1384 53793  | .9903 68895  | .1393 47069  | .0096 62124  |
| 0.1390 | 0.1385 52829 | 0.9903 55044 | 0.1394 48036 | 1.0096 76064 |
| .1391  | .1386 51864  | .9903 41184  | .1395 49004  | .0096 90014  |
| .1392  | .1387 50897  | .9903 27314  | .1396 49974  | .0097 03974  |
| .1393  | .1388 49929  | .9903 13434  | .1397 50945  | .0097 17944  |
| .1394  | .1389 48960  | .9902 99544  | .1398 51917  | .0097 31924  |
| 0.1395 | 0.1390 47989 | 0.9902 85644 | 0.1399 52891 | 1.0097 45914 |
| .1396  | .1391 47017  | .9902 71734  | .1400 53867  | .0097 59915  |
| .1397  | .1392 46044  | .9902 57815  | .1401 54843  | .0097 73925  |
| .1398  | .1393 45069  | .9902 43885  | .1402 55821  | .0097 87946  |
| .1399  | .1394 44092  | .9902 29946  | .1403 56801  | .0098 01976  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| O.1400 | O.1395 43115 | O.9902 15996 | O.1404 57782 | 1.0098 16017 |
| .1401  | .1396 42136  | .9902 02037  | .1405 58764  | .0098 30068  |
| .1402  | .1397 41155  | .9901 88068  | .1406 59748  | .0098 44129  |
| .1403  | .1398 40173  | .9901 74089  | .1407 60733  | .0098 58200  |
| .1404  | .1399 39190  | .9901 60100  | .1408 61719  | .0098 72281  |
| O.1405 | O.1400 38205 | O.9901 46101 | O.1409 62707 | 1.0098 86372 |
| .1406  | .1401 37219  | .9901 32092  | .1410 63697  | .0099 00474  |
| .1407  | .1402 36232  | .9901 18073  | .1411 64687  | .0099 14585  |
| .1408  | .1403 35243  | .9901 04045  | .1412 65680  | .0099 28707  |
| .1409  | .1404 34252  | .9900 90006  | .1413 66673  | .0099 42838  |
| O.1410 | O.1405 33261 | O.9900 75958 | O.1414 67668 | 1.0099 56980 |
| .1411  | .1406 32268  | .9900 61900  | .1415 68665  | .0099 71132  |
| .1412  | .1407 31273  | .9900 47832  | .1416 69662  | .0099 85294  |
| .1413  | .1408 30277  | .9900 33753  | .1417 70662  | .0099 99466  |
| .1414  | .1409 29280  | .9900 19666  | .1418 71662  | .0100 13648  |
| O.1415 | O.1410 28281 | O.9900 05568 | O.1419 72664 | 1.0100 27840 |
| .1416  | .1411 27281  | .9899 91460  | .1420 73668  | .0100 42042  |
| .1417  | .1412 26279  | .9899 77342  | .1421 74673  | .0100 56255  |
| .1418  | .1413 25276  | .9899 63215  | .1422 75679  | .0100 70477  |
| .1419  | .1414 24272  | .9899 49077  | .1423 76687  | .0100 84710  |
| O.1420 | O.1415 23266 | O.9899 34930 | O.1424 77696 | 1.0100 98953 |
| .1421  | .1416 22259  | .9899 20772  | .1425 78707  | .0101 13205  |
| .1422  | .1417 21250  | .9899 06605  | .1426 79719  | .0101 27468  |
| .1423  | .1418 20240  | .9898 92428  | .1427 80732  | .0101 41741  |
| .1424  | .1419 19229  | .9898 78241  | .1428 81747  | .0101 56024  |
| O.1425 | O.1420 18216 | O.9898 64044 | O.1429 82763 | 1.0101 70318 |
| .1426  | .1421 17202  | .9898 49838  | .1430 83781  | .0101 84621  |
| .1427  | .1422 16186  | .9898 35621  | .1431 84800  | .0101 98934  |
| .1428  | .1423 15169  | .9898 21394  | .1432 85821  | .0102 13258  |
| .1429  | .1424 14150  | .9898 07158  | .1433 86843  | .0102 27592  |
| O.1430 | O.1425 13130 | O.9897 92912 | O.1434 87866 | 1.0102 41935 |
| .1431  | .1426 12109  | .9897 78655  | .1435 88891  | .0102 56289  |
| .1432  | .1427 11086  | .9897 64389  | .1436 89918  | .0102 70653  |
| .1433  | .1428 10062  | .9897 50113  | .1437 90945  | .0102 85027  |
| .1434  | .1429 09036  | .9897 35827  | .1438 91975  | .0102 99411  |
| O.1435 | O.1430 08009 | O.9897 21531 | O.1439 93005 | 1.0103 13805 |
| .1436  | .1431 06980  | .9897 07225  | .1440 94037  | .0103 28210  |
| .1437  | .1432 05950  | .9896 92910  | .1441 95071  | .0103 42624  |
| .1438  | .1433 04919  | .9896 78584  | .1442 96106  | .0103 57049  |
| .1439  | .1434 03886  | .9896 64249  | .1443 97142  | .0103 71484  |
| O.1440 | O.1435 02852 | O.9896 49904 | O.1444 98180 | 1.0103 85928 |
| .1441  | .1436 01816  | .9896 35548  | .1445 99220  | .0104 00383  |
| .1442  | .1437 00779  | .9896 21183  | .1447 00260  | .0104 14848  |
| .1443  | .1437 99740  | .9896 06808  | .1448 01303  | .0104 29323  |
| .1444  | .1438 98700  | .9895 92423  | .1449 02346  | .0104 43808  |
| O.1445 | O.1439 97659 | O.9895 78028 | O.1450 03391 | 1.0104 58304 |
| .1446  | .1440 96616  | .9895 63624  | .1451 04438  | .0104 72809  |
| .1447  | .1441 95571  | .9895 49209  | .1452 05486  | .0104 87325  |
| .1448  | .1442 94526  | .9895 34785  | .1453 06535  | .0105 01850  |
| .1449  | .1443 93478  | .9895 20350  | .1454 07586  | .0105 16386  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.1450 | 0.1444 92430 | 0.9895 05906 | 0.1455 08639 | 1.0105 30932 |
| .1451  | .1445 91380  | .9894 91452  | .1456 09092  | .0105 45488  |
| .1452  | .1446 90328  | .9894 76988  | .1457 10748  | .0105 60034  |
| .1453  | .1447 89275  | .9894 62514  | .1458 11804  | .0105 74630  |
| .1454  | .1448 88221  | .9894 48030  | .1459 12863  | .0105 89216  |
| 0.1455 | 0.1449 87165 | 0.9894 33536 | 0.1460 13922 | 1.0106 03812 |
| .1456  | .1450 86107  | .9894 19032  | .1461 14983  | .0106 18419  |
| .1457  | .1451 85048  | .9894 04519  | .1462 16046  | .0106 33035  |
| .1458  | .1452 83988  | .9893 89995  | .1463 17110  | .0106 47662  |
| .1459  | .1453 82926  | .9893 75462  | .1464 18175  | .0106 62299  |
| 0.1460 | 0.1454 81863 | 0.9893 60919 | 0.1465 19242 | 1.0106 76946 |
| .1461  | .1455 80799  | .9893 46366  | .1466 20311  | .0106 91603  |
| .1462  | .1456 79732  | .9893 31803  | .1467 21381  | .0107 06270  |
| .1463  | .1457 78665  | .9893 17230  | .1468 22452  | .0107 20947  |
| .1464  | .1458 77596  | .9893 02647  | .1469 23525  | .0107 35634  |
| 0.1465 | 0.1459 76525 | 0.9892 88054 | 0.1470 24599 | 1.0107 50332 |
| .1466  | .1460 75454  | .9892 73452  | .1471 25675  | .0107 65039  |
| .1467  | .1461 74380  | .9892 58839  | .1472 26752  | .0107 79757  |
| .1468  | .1462 73305  | .9892 44217  | .1473 27831  | .0107 94484  |
| .1469  | .1463 72229  | .9892 29584  | .1474 28911  | .0108 09222  |
| 0.1470 | 0.1464 71151 | 0.9892 14942 | 0.1475 29993 | 1.0108 23970 |
| .1471  | .1465 70072  | .9892 00290  | .1476 31076  | .0108 38723  |
| .1472  | .1466 68991  | .9891 85628  | .1477 32161  | .0108 53496  |
| .1473  | .1467 67909  | .9891 70956  | .1478 33247  | .0108 68275  |
| .1474  | .1468 66825  | .9891 56275  | .1479 34334  | .0108 83063  |
| 0.1475 | 0.1469 65740 | 0.9891 41583 | 0.1480 35423 | 1.0108 97862 |
| .1476  | .1470 64654  | .9891 26881  | .1481 36514  | .0109 12670  |
| .1477  | .1471 63566  | .9891 12170  | .1482 37606  | .0109 27489  |
| .1478  | .1472 62476  | .9890 97449  | .1483 38699  | .0109 42318  |
| .1479  | .1473 61385  | .9890 82718  | .1484 39794  | .0109 57157  |
| 0.1480 | 0.1474 60293 | 0.9890 67976 | 0.1485 40891 | 1.0109 72006 |
| .1481  | .1475 59199  | .9890 53225  | .1486 41989  | .0109 86865  |
| .1482  | .1476 58103  | .9890 38465  | .1487 43088  | .0110 01734  |
| .1483  | .1477 57007  | .9890 23694  | .1488 44189  | .0110 16613  |
| .1484  | .1478 55908  | .9890 08913  | .1489 45291  | .0110 31503  |
| 0.1485 | 0.1479 54808 | 0.9889 94123 | 0.1490 46395 | 1.0110 46402 |
| .1486  | .1480 53707  | .9889 79322  | .1491 47501  | .0110 61312  |
| .1487  | .1481 52604  | .9889 64512  | .1492 48608  | .0110 76232  |
| .1488  | .1482 51500  | .9889 49692  | .1493 49716  | .0110 91162  |
| .1489  | .1483 50394  | .9889 34862  | .1494 50826  | .0111 06102  |
| 0.1490 | 0.1484 49287 | 0.9889 20022 | 0.1495 51937 | 1.0111 21052 |
| .1491  | .1485 48178  | .9889 05172  | .1496 53050  | .0111 36012  |
| .1492  | .1486 47068  | .9888 90312  | .1497 54164  | .0111 50983  |
| .1493  | .1487 45956  | .9888 75442  | .1498 55280  | .0111 65963  |
| .1494  | .1488 44843  | .9888 60563  | .1499 56398  | .0111 80954  |
| 0.1495 | 0.1489 43728 | 0.9888 45673 | 0.1500 57516 | 1.0111 95954 |
| .1496  | .1490 42612  | .9888 30774  | .1501 58637  | .0112 10965  |
| .1497  | .1491 41494  | .9888 15865  | .1502 59759  | .0112 25986  |
| .1498  | .1492 40375  | .9888 00946  | .1503 60882  | .0112 41017  |
| .1499  | .1493 39255  | .9887 86017  | .1504 62007  | .0112 56058  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.1500 | 0.1494 38132 | 0.9887 71078 | 0.1505 63133 | 1.0112 71110 |
| .1501  | .1495 37009  | .9887 56129  | .1506 64261  | .0112 86171  |
| .1502  | .1496 35884  | .9887 41171  | .1507 65390  | .0113 01242  |
| .1503  | .1497 34757  | .9887 26202  | .1508 66521  | .0113 16324  |
| .1504  | .1498 33629  | .9887 11224  | .1509 67654  | .0113 31416  |
| 0.1505 | 0.1499 32499 | 0.9886 96235 | 0.1510 68788 | 1.0113 46518 |
| .1506  | .1500 31368  | .9886 81237  | .1511 69923  | .0113 61629  |
| .1507  | .1501 30236  | .9886 66229  | .1512 71060  | .0113 76752  |
| .1508  | .1502 29101  | .9886 51211  | .1513 72198  | .0113 91884  |
| .1509  | .1503 27966  | .9886 36183  | .1514 73338  | .0114 07026  |
| 0.1510 | 0.1504 26829 | 0.9886 21145 | 0.1515 74480 | 1.0114 22178 |
| .1511  | .1505 25690  | .9886 06098  | .1516 75623  | .0114 37341  |
| .1512  | .1506 24550  | .9885 91040  | .1517 76767  | .0114 52513  |
| .1513  | .1507 23408  | .9885 75973  | .1518 77913  | .0114 67696  |
| .1514  | .1508 22265  | .9885 60896  | .1519 79061  | .0114 82889  |
| 0.1515 | 0.1509 21120 | 0.9885 45808 | 0.1520 80210 | 1.0114 98092 |
| .1516  | .1510 19974  | .9885 30711  | .1521 81360  | .0115 13305  |
| .1517  | .1511 18827  | .9885 15604  | .1522 82512  | .0115 28528  |
| .1518  | .1512 17677  | .9885 00488  | .1523 83666  | .0115 43762  |
| .1519  | .1513 16527  | .9884 85361  | .1524 84821  | .0115 59005  |
| 0.1520 | 0.1514 15374 | 0.9884 70224 | 0.1525 85978 | 1.0115 74259 |
| .1521  | .1515 14221  | .9884 55078  | .1526 87136  | .0115 89522  |
| .1522  | .1516 13065  | .9884 39921  | .1527 88296  | .0116 04796  |
| .1523  | .1517 11909  | .9884 24755  | .1528 89457  | .0116 20080  |
| .1524  | .1518 10750  | .9884 09579  | .1529 90620  | .0116 35374  |
| 0.1525 | 0.1519 09591 | 0.9883 94393 | 0.1530 91784 | 1.0116 50678 |
| .1526  | .1520 08429  | .9883 79197  | .1531 92950  | .0116 65992  |
| .1527  | .1521 07266  | .9883 63991  | .1532 94117  | .0116 81317  |
| .1528  | .1522 06102  | .9883 48776  | .1533 95286  | .0116 96651  |
| .1529  | .1523 04936  | .9883 33550  | .1534 96457  | .0117 11996  |
| 0.1530 | 0.1524 03769 | 0.9883 18315 | 0.1535 97629 | 1.0117 27350 |
| .1531  | .1525 02600  | .9883 03069  | .1536 98802  | .0117 42715  |
| .1532  | .1526 01429  | .9882 87814  | .1537 99977  | .0117 58090  |
| .1533  | .1527 00257  | .9882 72549  | .1539 01154  | .0117 73475  |
| .1534  | .1527 99084  | .9882 57274  | .1540 02332  | .0117 88870  |
| 0.1535 | 0.1528 97909 | 0.9882 41989 | 0.1541 03511 | 1.0118 04276 |
| .1536  | .1529 96732  | .9882 26695  | .1542 04693  | .0118 19691  |
| .1537  | .1530 95554  | .9882 11390  | .1543 05875  | .0118 35117  |
| .1538  | .1531 94375  | .9881 96075  | .1544 07060  | .0118 50552  |
| .1539  | .1532 93193  | .9881 80751  | .1545 08246  | .0118 65998  |
| 0.1540 | 0.1533 92011 | 0.9881 65417 | 0.1546 09433 | 1.0118 81454 |
| .1541  | .1534 90827  | .9881 50073  | .1547 10622  | .0118 96920  |
| .1542  | .1535 89641  | .9881 34719  | .1548 11812  | .0119 12396  |
| .1543  | .1536 88453  | .9881 19355  | .1549 13004  | .0119 27882  |
| .1544  | .1537 87265  | .9881 03981  | .1550 14198  | .0119 43379  |
| 0.1545 | 0.1538 86074 | 0.9880 88597 | 0.1551 15393 | 1.0119 58885 |
| .1546  | .1539 84882  | .9880 73204  | .1552 16590  | .0119 74402  |
| .1547  | .1540 83689  | .9880 57800  | .1553 17788  | .0119 89928  |
| .1548  | .1541 82494  | .9880 42387  | .1554 18988  | .0120 05465  |
| .1549  | .1542 81297  | .9880 26964  | .1555 20189  | .0120 21012  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.1550 | 0.1543 80099 | 0.9880 11531 | 0.1556 21592 | 1.0120 36539 |
| .1551  | .1544 78900  | .9879 96088  | .1557 22596  | .0120 52136  |
| .1552  | .1545 77699  | .9879 80635  | .1558 23802  | .0120 67714  |
| .1553  | .1546 76496  | .9879 65172  | .1559 25010  | .0120 83301  |
| .1554  | .1547 75292  | .9879 49700  | .1560 26219  | .0120 98899  |
| 0.1555 | 0.1548 74086 | 0.9879 34217 | 0.1561 27430 | 1.0121 14506 |
| .1556  | .1549 72878  | .9879 18725  | .1562 28642  | .0121 30124  |
| .1557  | .1550 71669  | .9879 03223  | .1563 29856  | .0121 45732  |
| .1558  | .1551 70459  | .9878 87711  | .1564 31071  | .0121 61390  |
| .1559  | .1552 69247  | .9878 72189  | .1565 32288  | .0121 77038  |
| 0.1560 | 0.1553 68033 | 0.9878 56657 | 0.1566 33506 | 1.0121 92697 |
| .1561  | .1554 66818  | .9878 41115  | .1567 34726  | .0122 08365  |
| .1562  | .1555 65602  | .9878 25563  | .1568 35948  | .0122 24044  |
| .1563  | .1556 64383  | .9878 10002  | .1569 37171  | .0122 39732  |
| .1564  | .1557 63164  | .9877 94430  | .1570 38396  | .0122 55431  |
| 0.1565 | 0.1558 61942 | 0.9877 78849 | 0.1571 39622 | 1.0122 71140 |
| .1566  | .1559 60719  | .9877 63258  | .1572 40850  | .0122 86859  |
| .1567  | .1560 59495  | .9877 47657  | .1573 42080  | .0123 02588  |
| .1568  | .1561 58269  | .9877 32046  | .1574 43311  | .0123 18327  |
| .1569  | .1562 57041  | .9877 16425  | .1575 44543  | .0123 34077  |
| 0.1570 | 0.1563 55812 | 0.9877 00795 | 0.1576 45778 | 1.0123 49836 |
| .1571  | .1564 54582  | .9876 85154  | .1577 47013  | .0123 65606  |
| .1572  | .1565 53349  | .9876 69504  | .1578 48251  | .0123 81386  |
| .1573  | .1566 52115  | .9876 53844  | .1579 49490  | .0123 97176  |
| .1574  | .1567 50880  | .9876 38173  | .1580 50730  | .0124 12976  |
| 0.1575 | 0.1568 49643 | 0.9876 22493 | 0.1581 51972 | 1.0124 28786 |
| .1576  | .1569 48405  | .9876 06803  | .1582 53216  | .0124 44606  |
| .1577  | .1570 47164  | .9875 91104  | .1583 54461  | .0124 60436  |
| .1578  | .1571 45923  | .9875 75394  | .1584 55708  | .0124 76277  |
| .1579  | .1572 44680  | .9875 59675  | .1585 56956  | .0124 92128  |
| 0.1580 | 0.1573 43435 | 0.9875 43945 | 0.1586 58206 | 1.0125 07988 |
| .1581  | .1574 42188  | .9875 28206  | .1587 59458  | .0125 23859  |
| .1582  | .1575 40940  | .9875 12457  | .1588 60711  | .0125 39740  |
| .1583  | .1576 39691  | .9874 96698  | .1589 61966  | .0125 55631  |
| .1584  | .1577 38440  | .9874 80929  | .1590 63222  | .0125 71533  |
| 0.1585 | 0.1578 37187 | 0.9874 65150 | 0.1591 64480 | 1.0125 87444 |
| .1586  | .1579 35933  | .9874 49361  | .1592 65740  | .0126 03366  |
| .1587  | .1580 34677  | .9874 33563  | .1593 67001  | .0126 19297  |
| .1588  | .1581 33419  | .9874 17754  | .1594 68264  | .0126 35239  |
| .1589  | .1582 32160  | .9874 01936  | .1595 69528  | .0126 51191  |
| 0.1590 | 0.1583 30900 | 0.9873 86108 | 0.1596 70794 | 1.0126 67153 |
| .1591  | .1584 29638  | .9873 70270  | .1597 72061  | .0126 83125  |
| .1592  | .1585 28374  | .9873 54422  | .1598 73330  | .0126 99107  |
| .1593  | .1586 27109  | .9873 38564  | .1599 74601  | .0127 15100  |
| .1594  | .1587 25842  | .9873 22697  | .1600 75874  | .0127 31102  |
| 0.1595 | 0.1588 24573 | 0.9873 06819 | 0.1601 77147 | 1.0127 47115 |
| .1596  | .1589 23303  | .9872 90932  | .1602 78423  | .0127 63138  |
| .1597  | .1590 22031  | .9872 75034  | .1603 79700  | .0127 79170  |
| .1598  | .1591 20758  | .9872 59127  | .1604 80979  | .0127 95214  |
| .1599  | .1592 19483  | .9872 43210  | .1605 82259  | .0128 11267  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.1600 | 0.1593 18207 | 0.9872 27283 | 0.1606 83541 | 1.0128 27330 |
| .1601  | .1594 16929  | .9872 11347  | .1607 84825  | .0128 43403  |
| .1602  | .1595 15649  | .9871 95400  | .1608 86110  | .0128 59487  |
| .1603  | .1596 14368  | .9871 79443  | .1609 87396  | .0128 75581  |
| .1604  | .1597 13085  | .9871 63477  | .1610 88685  | .0128 91684  |
| 0.1605 | 0.1598 11800 | 0.9871 47501 | 0.1611 89975 | 1.0129 07798 |
| .1606  | .1599 10514  | .9871 31515  | .1612 91266  | .0129 23922  |
| .1607  | .1600 09227  | .9871 15519  | .1613 92560  | .0129 40057  |
| .1608  | .1601 07937  | .9870 99513  | .1614 93854  | .0129 56201  |
| .1609  | .1602 06647  | .9870 83497  | .1615 95151  | .0129 72355  |
| 0.1610 | 0.1603 05354 | 0.9870 67472 | 0.1616 96449 | 1.0129 88520 |
| .1611  | .1604 04060  | .9870 51436  | .1617 97749  | .0130 04695  |
| .1612  | .1605 02764  | .9870 35391  | .1618 99050  | .0130 20880  |
| .1613  | .1606 01467  | .9870 19336  | .1620 00353  | .0130 37074  |
| .1614  | .1607 00168  | .9870 03270  | .1621 01657  | .0130 53280  |
| 0.1615 | 0.1607 98868 | 0.9869 87196 | 0.1622 02963 | 1.0130 69495 |
| .1616  | .1608 97566  | .9869 71111  | .1623 04271  | .0130 85720  |
| .1617  | .1609 96262  | .9869 55016  | .1624 05580  | .0131 01956  |
| .1618  | .1610 94957  | .9869 38911  | .1625 06891  | .0131 18201  |
| .1619  | .1611 93650  | .9869 22797  | .1626 08204  | .0131 34457  |
| 0.1620 | 0.1612 92341 | 0.9869 06673 | 0.1627 09518 | 1.0131 50723 |
| .1621  | .1613 91031  | .9868 90539  | .1628 10834  | .0131 66999  |
| .1622  | .1614 89719  | .9868 74395  | .1629 12152  | .0131 83285  |
| .1623  | .1615 88406  | .9868 58241  | .1630 13471  | .0131 99581  |
| .1624  | .1616 87091  | .9868 42077  | .1631 14792  | .0132 15888  |
| 0.1625 | 0.1617 85774 | 0.9868 25903 | 0.1632 16114 | 1.0132 32204 |
| .1626  | .1618 84456  | .9868 09720  | .1633 17438  | .0132 48531  |
| .1627  | .1619 83136  | .9867 93526  | .1634 18764  | .0132 64868  |
| .1628  | .1620 81815  | .9867 77323  | .1635 20091  | .0132 81215  |
| .1629  | .1621 80492  | .9867 61110  | .1636 21420  | .0132 97572  |
| 0.1630 | 0.1622 79167 | 0.9867 44887 | 0.1637 22751 | 1.0133 13939 |
| .1631  | .1623 77841  | .9867 28654  | .1638 24083  | .0133 30316  |
| .1632  | .1624 76513  | .9867 12411  | .1639 25417  | .0133 46704  |
| .1633  | .1625 75183  | .9866 96159  | .1640 26752  | .0133 63101  |
| .1634  | .1626 73852  | .9866 79896  | .1641 28089  | .0133 79509  |
| 0.1635 | 0.1627 72519 | 0.9866 63624 | 0.1642 29428 | 1.0133 95927 |
| .1636  | .1628 71185  | .9866 47342  | .1643 30769  | .0134 12355  |
| .1637  | .1629 69849  | .9866 31050  | .1644 32111  | .0134 28793  |
| .1638  | .1630 68511  | .9866 14748  | .1645 33454  | .0134 45242  |
| .1639  | .1631 67172  | .9865 98436  | .1646 34800  | .0134 61700  |
| 0.1640 | 0.1632 65831 | 0.9865 82114 | 0.1647 36147 | 1.0134 78168 |
| .1641  | .1633 64488  | .9865 65783  | .1648 37495  | .0134 94647  |
| .1642  | .1634 63144  | .9865 49442  | .1649 38846  | .0135 11136  |
| .1643  | .1635 61798  | .9865 33090  | .1650 40197  | .0135 27635  |
| .1644  | .1636 60450  | .9865 16729  | .1651 41551  | .0135 44144  |
| 0.1645 | 0.1637 59101 | 0.9865 00358 | 0.1652 42906 | 1.0135 60663 |
| .1646  | .1638 57751  | .9864 83977  | .1653 44263  | .0135 77193  |
| .1647  | .1639 56398  | .9864 67587  | .1654 45622  | .0135 93732  |
| .1648  | .1640 55044  | .9864 51186  | .1655 46982  | .0136 10282  |
| .1649  | .1641 53688  | .9864 34776  | .1656 48344  | .0136 26841  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.1650 | 0.1642 52331 | 0.9864 18355 | 0.1657 49707 | 1.0136 43411 |
| .1651  | .1643 50972  | .9864 01925  | .1658 51072  | .0136 59991  |
| .1652  | .1644 49611  | .9863 85485  | .1659 52439  | .0136 76582  |
| .1653  | .1645 48249  | .9863 69035  | .1660 53808  | .0136 93182  |
| .1654  | .1646 46885  | .9863 52576  | .1661 55178  | .0137 09792  |
| 0.1655 | 0.1647 45520 | 0.9863 36106 | 0.1662 56550 | 1.0137 26413 |
| .1656  | .1648 44152  | .9863 19626  | .1663 57923  | .0137 43044  |
| .1657  | .1649 42784  | .9863 03137  | .1664 59298  | .0137 59685  |
| .1658  | .1650 41413  | .9862 86638  | .1665 60675  | .0137 76336  |
| .1659  | .1651 40041  | .9862 70129  | .1666 62054  | .0137 92997  |
| 0.1660 | 0.1652 38667 | 0.9862 53610 | 0.1667 63434 | 1.0138 09668 |
| .1661  | .1653 37292  | .9862 37081  | .1668 64816  | .0138 26349  |
| .1662  | .1654 35914  | .9862 20542  | .1669 66199  | .0138 43041  |
| .1663  | .1655 34536  | .9862 03994  | .1670 67584  | .0138 59743  |
| .1664  | .1656 33155  | .9861 87435  | .1671 68971  | .0138 76454  |
| 0.1665 | 0.1657 31773 | 0.9861 70867 | 0.1672 70359 | 1.0138 93176 |
| .1666  | .1658 30389  | .9861 54289  | .1673 71750  | .0139 09909  |
| .1667  | .1659 29004  | .9861 37701  | .1674 73141  | .0139 26651  |
| .1668  | .1660 27617  | .9861 21103  | .1675 74535  | .0139 43403  |
| .1669  | .1661 26228  | .9861 04496  | .1676 75930  | .0139 60166  |
| 0.1670 | 0.1662 24838 | 0.9860 87878 | 0.1677 77327 | 1.0139 76938 |
| .1671  | .1663 23446  | .9860 71251  | .1678 78726  | .0139 93721  |
| .1672  | .1664 22052  | .9860 54613  | .1679 80126  | .0140 10514  |
| .1673  | .1665 20657  | .9860 37966  | .1680 81528  | .0140 27317  |
| .1674  | .1666 19260  | .9860 21309  | .1681 82931  | .0140 44130  |
| 0.1675 | 0.1667 17861 | 0.9860 04642 | 0.1682 84336 | 1.0140 60954 |
| .1676  | .1668 16461  | .9859 87966  | .1683 85743  | .0140 77787  |
| .1677  | .1669 15059  | .9859 71279  | .1684 87152  | .0140 94631  |
| .1678  | .1670 13655  | .9859 54583  | .1685 88562  | .0141 11485  |
| .1679  | .1671 12250  | .9859 37876  | .1686 89974  | .0141 28349  |
| 0.1680 | 0.1672 10842 | 0.9859 21160 | 0.1687 91388 | 1.0141 45223 |
| .1681  | .1673 09434  | .9859 04434  | .1688 92803  | .0141 62107  |
| .1682  | .1674 08023  | .9858 87698  | .1689 94220  | .0141 79001  |
| .1683  | .1675 06611  | .9858 70953  | .1690 95639  | .0141 95906  |
| .1684  | .1676 05198  | .9858 54197  | .1691 97060  | .0142 12820  |
| 0.1685 | 0.1677 03782 | 0.9858 37432 | 0.1692 98482 | 1.0142 29745 |
| .1686  | .1678 02365  | .9858 20656  | .1693 99906  | .0142 46680  |
| .1687  | .1679 00946  | .9858 03871  | .1695 01331  | .0142 63625  |
| .1688  | .1679 99526  | .9857 87076  | .1696 02758  | .0142 80580  |
| .1689  | .1680 98104  | .9857 70271  | .1697 04187  | .0142 97546  |
| 0.1690 | 0.1681 96680 | 0.9857 53456 | 0.1698 05618 | 1.0143 14521 |
| .1691  | .1682 95254  | .9857 36632  | .1699 07050  | .0143 31507  |
| .1692  | .1683 93827  | .9857 19797  | .1700 08484  | .0143 48503  |
| .1693  | .1684 92398  | .9857 02953  | .1701 09920  | .0143 65508  |
| .1694  | .1685 90968  | .9856 86099  | .1702 11357  | .0143 82525  |
| 0.1695 | 0.1686 89536 | 0.9856 69235 | 0.1703 12796 | 1.0143 99551 |
| .1696  | .1687 88102  | .9856 52361  | .1704 14237  | .0144 16587  |
| .1697  | .1688 86666  | .9856 35477  | .1705 15680  | .0144 33634  |
| .1698  | .1689 85229  | .9856 18584  | .1706 17124  | .0144 50690  |
| .1699  | .1690 83790  | .9856 01680  | .1707 18570  | .0144 67757  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.1700 | 0.1691 82349 | 0.9855 84767 | 0.1708 20017 | 1.0144 84834 |
| .1701  | .1692 80907  | .9855 67844  | .1709 21467  | .0145 01921  |
| .1702  | .1693 79463  | .9855 50911  | .1710 22918  | .0145 19018  |
| .1703  | .1694 78017  | .9855 33968  | .1711 24371  | .0145 36126  |
| .1704  | .1695 76569  | .9855 17015  | .1712 25825  | .0145 53243  |
| 0.1705 | 0.1696 75120 | 0.9855 00053 | 0.1713 27281 | 1.0145 70371 |
| .1706  | .1697 73669  | .9854 83080  | .1714 28739  | .0145 87509  |
| .1707  | .1698 72217  | .9854 66098  | .1715 30199  | .0146 04657  |
| .1708  | .1699 70763  | .9854 49106  | .1716 31660  | .0146 21815  |
| .1709  | .1700 69307  | .9854 32104  | .1717 33123  | .0146 38983  |
| 0.1710 | 0.1701 67849 | 0.9854 15092 | 0.1718 34588 | 1.0146 56161 |
| .1711  | .1702 66390  | .9853 98070  | .1719 36054  | .0146 73350  |
| .1712  | .1703 64929  | .9853 81039  | .1720 37522  | .0146 90548  |
| .1713  | .1704 63466  | .9853 63997  | .1721 38992  | .0147 07757  |
| .1714  | .1705 62001  | .9853 46946  | .1722 40464  | .0147 24976  |
| 0.1715 | 0.1706 60535 | 0.9853 29885 | 0.1723 41937 | 1.0147 42205 |
| .1716  | .1707 59067  | .9853 12814  | .1724 43412  | .0147 59445  |
| .1717  | .1708 57598  | .9852 95733  | .1725 44889  | .0147 76694  |
| .1718  | .1709 56127  | .9852 78642  | .1726 46368  | .0147 93954  |
| .1719  | .1710 54654  | .9852 61542  | .1727 47848  | .0148 11223  |
| 0.1720 | 0.1711 53179 | 0.9852 44431 | 0.1728 49330 | 1.0148 28503 |
| .1721  | .1712 51703  | .9852 27311  | .1729 50814  | .0148 45793  |
| .1722  | .1713 50224  | .9852 10181  | .1730 52299  | .0148 63093  |
| .1723  | .1714 48745  | .9851 93041  | .1731 53786  | .0148 80404  |
| .1724  | .1715 47263  | .9851 75891  | .1732 55275  | .0148 97724  |
| 0.1725 | 0.1716 45780 | 0.9851 58732 | 0.1733 56766 | 1.0149 15055 |
| .1726  | .1717 44295  | .9851 41562  | .1734 58258  | .0149 32395  |
| .1727  | .1718 42808  | .9851 24383  | .1735 59752  | .0149 49746  |
| .1728  | .1719 41320  | .9851 07193  | .1736 61248  | .0149 67107  |
| .1729  | .1720 39829  | .9850 89994  | .1737 62746  | .0149 84479  |
| 0.1730 | 0.1721 38338 | 0.9850 72785 | 0.1738 64245 | 1.0150 01860 |
| .1731  | .1722 36844  | .9850 55567  | .1739 65746  | .0150 19251  |
| .1732  | .1723 35349  | .9850 38338  | .1740 67249  | .0150 36653  |
| .1733  | .1724 33852  | .9850 21100  | .1741 68754  | .0150 54065  |
| .1734  | .1725 32353  | .9850 03851  | .1742 70260  | .0150 71487  |
| 0.1735 | 0.1726 30852 | 0.9849 86593 | 0.1743 71768 | 1.0150 88919 |
| .1736  | .1727 29350  | .9849 69325  | .1744 73278  | .0151 06361  |
| .1737  | .1728 27846  | .9849 52047  | .1745 74789  | .0151 23814  |
| .1738  | .1729 26341  | .9849 34760  | .1746 76302  | .0151 41276  |
| .1739  | .1730 24833  | .9849 17462  | .1747 77817  | .0151 58749  |
| 0.1740 | 0.1731 23324 | 0.9849 00155 | 0.1748 79334 | 1.0151 76232 |
| .1741  | .1732 21813  | .9848 82837  | .1749 80853  | .0151 93725  |
| .1742  | .1733 20301  | .9848 65510  | .1750 82373  | .0152 11228  |
| .1743  | .1734 18786  | .9848 48173  | .1751 83895  | .0152 28741  |
| .1744  | .1735 17270  | .9848 30827  | .1752 85419  | .0152 46265  |
| 0.1745 | 0.1736 15753 | 0.9848 13470 | 0.1753 86944 | 1.0152 63798 |
| .1746  | .1737 14233  | .9847 96103  | .1754 88471  | .0152 81342  |
| .1747  | .1738 12712  | .9847 78727  | .1755 90000  | .0152 98896  |
| .1748  | .1739 11189  | .9847 61341  | .1756 91531  | .0153 16460  |
| .1749  | .1740 09664  | .9847 43945  | .1757 93064  | .0153 34034  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.1750 | 0.1741 08138 | 0.9847 26539 | 0.1758 94598 | 1.0153 51619 |
| .1751  | .1742 06609  | .9847 09123  | .1759 96134  | .0153 69213  |
| .1752  | .1743 05079  | .9846 91698  | .1760 97672  | .0153 86818  |
| .1753  | .1744 03548  | .9846 74262  | .1761 99211  | .0154 04433  |
| .1754  | .1745 02014  | .9846 56817  | .1763 00753  | .0154 22058  |
| 0.1755 | 0.1746 00479 | 0.9846 39362 | 0.1764 02296 | 1.0154 39693 |
| .1756  | .1746 98942  | .9846 21897  | .1765 03841  | .0154 57338  |
| .1757  | .1747 97403  | .9846 04422  | .1766 05387  | .0154 74994  |
| .1758  | .1748 95863  | .9845 86937  | .1767 06936  | .0154 92659  |
| .1759  | .1749 94321  | .9845 69443  | .1768 08486  | .0155 10335  |
| 0.1760 | 0.1750 92777 | 0.9845 51938 | 0.1769 10038 | 1.0155 28021 |
| .1761  | .1751 91231  | .9845 34424  | .1770 11591  | .0155 45717  |
| .1762  | .1752 89684  | .9845 16900  | .1771 13147  | .0155 63423  |
| .1763  | .1753 88135  | .9844 99366  | .1772 14704  | .0155 81140  |
| .1764  | .1754 86584  | .9844 81823  | .1773 16263  | .0155 98866  |
| 0.1765 | 0.1755 85031 | 0.9844 64269 | 0.1774 17824 | 1.0156 16603 |
| .1766  | .1756 83477  | .9844 46706  | .1775 19386  | .0156 34350  |
| .1767  | .1757 81920  | .9844 29132  | .1776 20951  | .0156 52107  |
| .1768  | .1758 80362  | .9844 11549  | .1777 22517  | .0156 69874  |
| .1769  | .1759 78803  | .9843 93956  | .1778 24085  | .0156 87651  |
| 0.1770 | 0.1760 77241 | 0.9843 76353 | 0.1779 25654 | 1.0157 05439 |
| .1771  | .1761 75678  | .9843 58741  | .1780 27226  | .0157 23236  |
| .1772  | .1762 74113  | .9843 41118  | .1781 28799  | .0157 41044  |
| .1773  | .1763 72546  | .9843 23486  | .1782 30374  | .0157 58862  |
| .1774  | .1764 70978  | .9843 05844  | .1783 31951  | .0157 76690  |
| 0.1775 | 0.1765 69407 | 0.9842 88192 | 0.1784 33529 | 1.0157 94529 |
| .1776  | .1766 67835  | .9842 70530  | .1785 35110  | .0158 12377  |
| .1777  | .1767 66261  | .9842 52858  | .1786 36692  | .0158 30236  |
| .1778  | .1768 64686  | .9842 35177  | .1787 38276  | .0158 48104  |
| .1779  | .1769 63108  | .9842 17485  | .1788 39861  | .0158 65983  |
| 0.1780 | 0.1770 61529 | 0.9841 99784 | 0.1789 41449 | 1.0158 83872 |
| .1781  | .1771 59948  | .9841 82073  | .1790 43038  | .0159 01772  |
| .1782  | .1772 58366  | .9841 64352  | .1791 44629  | .0159 19681  |
| .1783  | .1773 56781  | .9841 46621  | .1792 46222  | .0159 37601  |
| .1784  | .1774 55195  | .9841 28881  | .1793 47817  | .0159 55530  |
| 0.1785 | 0.1775 53607 | 0.9841 11130 | 0.1794 49413 | 1.0159 73470 |
| .1786  | .1776 52017  | .9840 93370  | .1795 51011  | .0159 91420  |
| .1787  | .1777 50426  | .9840 75600  | .1796 52611  | .0160 09380  |
| .1788  | .1778 48832  | .9840 57820  | .1797 54213  | .0160 27351  |
| .1789  | .1779 47237  | .9840 40030  | .1798 55817  | .0160 45331  |
| 0.1790 | 0.1780 45640 | 0.9840 22230 | 0.1799 57422 | 1.0160 63322 |
| .1791  | .1781 44042  | .9840 04421  | .1800 59030  | .0160 81323  |
| .1792  | .1782 42441  | .9839 86602  | .1801 60639  | .0160 99334  |
| .1793  | .1783 40839  | .9839 68772  | .1802 62249  | .0161 17355  |
| .1794  | .1784 39235  | .9839 50933  | .1803 63862  | .0161 35386  |
| 0.1795 | 0.1785 37629 | 0.9839 33085 | 0.1804 65477 | 1.0161 53428 |
| .1796  | .1786 36022  | .9839 15226  | .1805 67093  | .0161 71479  |
| .1797  | .1787 34412  | .9838 97357  | .1806 68711  | .0161 89541  |
| .1798  | .1788 32801  | .9838 79479  | .1807 70331  | .0162 07613  |
| .1799  | .1789 31188  | .9838 61591  | .1808 71952  | .0162 25695  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.1800 | 0.1790 29573 | 0.9838 43693 | 0.1809 73576 | 1.0162 43727 |
| .1801  | .1791 27957  | .9838 25785  | .1810 75201  | .0162 61890  |
| .1802  | .1792 26339  | .9838 07867  | .1811 76828  | .0162 80002  |
| .1803  | .1793 24718  | .9837 89940  | .1812 78457  | .0162 98125  |
| .1804  | .1794 23097  | .9837 72002  | .1813 80088  | .0163 16258  |
| 0.1805 | 0.1795 21473 | 0.9837 54055 | 0.1814 81720 | 1.0163 34401 |
| .1806  | .1796 19847  | .9837 36098  | .1815 83355  | .0163 52554  |
| .1807  | .1797 18220  | .9837 18131  | .1816 84991  | .0163 70718  |
| .1808  | .1798 16591  | .9837 00154  | .1817 86629  | .0163 88891  |
| .1809  | .1799 14960  | .9836 82168  | .1818 88269  | .0164 07075  |
| 0.1810 | 0.1800 13327 | 0.9836 64171 | 0.1819 89910 | 1.0164 25269 |
| .1811  | .1801 11693  | .9836 46165  | .1820 91554  | .0164 43473  |
| .1812  | .1802 10057  | .9836 28149  | .1821 93199  | .0164 61687  |
| .1813  | .1803 08419  | .9836 10123  | .1822 94846  | .0164 79912  |
| .1814  | .1804 06779  | .9835 92087  | .1823 96495  | .0164 98146  |
| 0.1815 | 0.1805 05137 | 0.9835 74042 | 0.1824 98146 | 1.0165 16391 |
| .1816  | .1806 03494  | .9835 55986  | .1825 99798  | .0165 34646  |
| .1817  | .1807 01848  | .9835 37921  | .1827 01453  | .0165 52911  |
| .1818  | .1808 00201  | .9835 19846  | .1828 03109  | .0165 71186  |
| .1819  | .1808 98552  | .9835 01761  | .1829 04767  | .0165 89472  |
| 0.1820 | 0.1809 96901 | 0.9834 83666 | 0.1830 06427 | 1.0166 07767 |
| .1821  | .1810 95249  | .9834 65562  | .1831 08088  | .0166 26073  |
| .1822  | .1811 93595  | .9834 47447  | .1832 09752  | .0166 44389  |
| .1823  | .1812 91938  | .9834 29323  | .1833 11417  | .0166 62715  |
| .1824  | .1813 90280  | .9834 11189  | .1834 13084  | .0166 81051  |
| 0.1825 | 0.1814 88621 | 0.9833 93045 | 0.1835 14754 | 1.0166 99397 |
| .1826  | .1815 86959  | .9833 74891  | .1836 16424  | .0167 17754  |
| .1827  | .1816 85296  | .9833 56727  | .1837 18097  | .0167 36121  |
| .1828  | .1817 83630  | .9833 38554  | .1838 19772  | .0167 54498  |
| .1829  | .1818 81963  | .9833 20371  | .1839 21448  | .0167 72885  |
| 0.1830 | 0.1819 80294 | 0.9833 02178 | 0.1840 23126 | 1.0167 91282 |
| .1831  | .1820 78624  | .9832 83975  | .1841 24806  | .0168 09689  |
| .1832  | .1821 76951  | .9832 65762  | .1842 26488  | .0168 28107  |
| .1833  | .1822 75277  | .9832 47539  | .1843 28172  | .0168 46535  |
| .1834  | .1823 73601  | .9832 29307  | .1844 29857  | .0168 64973  |
| 0.1835 | 0.1824 71923 | 0.9832 11065 | 0.1845 31545 | 1.0168 83421 |
| .1836  | .1825 70243  | .9831 92812  | .1846 33234  | .0169 01879  |
| .1837  | .1826 68561  | .9831 74550  | .1847 34925  | .0169 20347  |
| .1838  | .1827 66878  | .9831 56279  | .1848 36618  | .0169 38826  |
| .1839  | .1828 65193  | .9831 37997  | .1849 38313  | .0169 57315  |
| 0.1840 | 0.1829 63505 | 0.9831 19706 | 0.1850 40010 | 1.0169 75813 |
| .1841  | .1830 61817  | .9831 01404  | .1851 41708  | .0169 94323  |
| .1842  | .1831 60126  | .9830 83093  | .1852 43408  | .0170 12842  |
| .1843  | .1832 58433  | .9830 64772  | .1853 45111  | .0170 31371  |
| .1844  | .1833 56739  | .9830 46442  | .1854 46815  | .0170 49911  |
| 0.1845 | 0.1834 55042 | 0.9830 28101 | 0.1855 48521 | 1.0170 68461 |
| .1846  | .1835 53344  | .9830 09751  | .1856 50228  | .0170 87021  |
| .1847  | .1836 51644  | .9829 91390  | .1857 51938  | .0171 05591  |
| .1848  | .1837 49943  | .9829 73020  | .1858 53650  | .0171 24171  |
| .1849  | .1838 48239  | .9829 54640  | .1859 55363  | .0171 42761  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.1850 | 0.1839 46534 | 0.9829 36251 | 0.1860 57078 | 1.0171 61362 |
| .1851  | .1840 44826  | .9829 17851  | .1861 58795  | .0171 79973  |
| .1852  | .1841 43117  | .9828 99442  | .1862 60514  | .0171 98594  |
| .1853  | .1842 41406  | .9828 81022  | .1863 62235  | .0172 17225  |
| .1854  | .1843 39693  | .9828 62593  | .1864 63958  | .0172 35866  |
| 0.1855 | 0.1844 37979 | 0.9828 44155 | 0.1865 65682 | 1.0172 54518 |
| .1856  | .1845 36262  | .9828 25706  | .1866 67408  | .0172 73179  |
| .1857  | .1846 34544  | .9828 07247  | .1867 69137  | .0172 91851  |
| .1858  | .1847 32824  | .9827 88779  | .1868 70867  | .0173 10533  |
| .1859  | .1848 31102  | .9827 70301  | .1869 72599  | .0173 29225  |
| 0.1860 | 0.1849 29378 | 0.9827 51813 | 0.1870 74333 | 1.0173 47928 |
| .1861  | .1850 27652  | .9827 33315  | .1871 76068  | .0173 66640  |
| .1862  | .1851 25924  | .9827 14807  | .1872 77806  | .0173 85363  |
| .1863  | .1852 24195  | .9826 96290  | .1873 79545  | .0174 04096  |
| .1864  | .1853 22464  | .9826 77762  | .1874 81287  | .0174 22839  |
| 0.1865 | 0.1854 20730 | 0.9826 59225 | 0.1875 83030 | 1.0174 41592 |
| .1866  | .1855 18995  | .9826 40678  | .1876 84775  | .0174 60355  |
| .1867  | .1856 17259  | .9826 22121  | .1877 86522  | .0174 79129  |
| .1868  | .1857 15520  | .9826 03555  | .1878 88271  | .0174 97913  |
| .1869  | .1858 13779  | .9825 84978  | .1879 90022  | .0175 16707  |
| 0.1870 | 0.1859 12037 | 0.9825 66392 | 0.1880 91774 | 1.0175 35511 |
| .1871  | .1860 10293  | .9825 47796  | .1881 93529  | .0175 54325  |
| .1872  | .1861 08546  | .9825 29190  | .1882 95285  | .0175 73149  |
| .1873  | .1862 06798  | .9825 10574  | .1883 97043  | .0175 91984  |
| .1874  | .1863 05048  | .9824 91949  | .1884 98804  | .0176 10829  |
| 0.1875 | 0.1864 03297 | 0.9824 73313 | 0.1886 00566 | 1.0176 29684 |
| .1876  | .1865 01543  | .9824 54668  | .1887 02330  | .0176 48549  |
| .1877  | .1865 99788  | .9824 36013  | .1888 04095  | .0176 67424  |
| .1878  | .1866 98030  | .9824 17348  | .1889 05863  | .0176 86310  |
| .1879  | .1867 96271  | .9823 98673  | .1890 07633  | .0177 05205  |
| 0.1880 | 0.1868 94510 | 0.9823 79989 | 0.1891 09404 | 1.0177 24111 |
| .1881  | .1869 92747  | .9823 61294  | .1892 11177  | .0177 43027  |
| .1882  | .1870 90982  | .9823 42590  | .1893 12953  | .0177 61954  |
| .1883  | .1871 89216  | .9823 23876  | .1894 14730  | .0177 80890  |
| .1884  | .1872 87447  | .9823 05152  | .1895 16509  | .0177 99836  |
| 0.1885 | 0.1873 85677 | 0.9822 86419 | 0.1896 18290 | 1.0178 18793 |
| .1886  | .1874 83904  | .9822 67675  | .1897 20073  | .0178 37760  |
| .1887  | .1875 82130  | .9822 48922  | .1898 21857  | .0178 56737  |
| .1888  | .1876 80354  | .9822 30159  | .1899 23644  | .0178 75725  |
| .1889  | .1877 78576  | .9822 11386  | .1900 25432  | .0178 94722  |
| 0.1890 | 0.1878 76796 | 0.9821 92603 | 0.1901 27223 | 1.0179 13730 |
| .1891  | .1879 75015  | .9821 73810  | .1902 29015  | .0179 32747  |
| .1892  | .1880 73231  | .9821 55008  | .1903 30809  | .0179 51775  |
| .1893  | .1881 71446  | .9821 36196  | .1904 32606  | .0179 70814  |
| .1894  | .1882 69658  | .9821 17374  | .1905 34404  | .0179 89862  |
| 0.1895 | 0.1883 67869 | 0.9820 98542 | 0.1906 36204 | 1.0180 08920 |
| .1896  | .1884 66078  | .9820 79700  | .1907 38005  | .0180 27989  |
| .1897  | .1885 64285  | .9820 60849  | .1908 39809  | .0180 47068  |
| .1898  | .1886 62490  | .9820 41987  | .1909 41615  | .0180 66157  |
| .1899  | .1887 60694  | .9820 23116  | .1910 43422  | .0180 85256  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 0.1900 | 0.1888 58895 | 0.9820 04235 | 0.1911 45232 | 1.0181 04366 |
| .1901  | .1889 57094  | .9819 85344  | .1912 47043  | .0181 23485  |
| .1902  | .1890 55292  | .9819 66444  | .1913 48857  | .0181 42615  |
| .1903  | .1891 53488  | .9819 47533  | .1914 50672  | .0181 61755  |
| .1904  | .1892 51682  | .9819 28613  | .1915 52489  | .0181 80905  |
| 0.1905 | 0.1893 49873 | 0.9819 09683 | 0.1916 54308 | 1.0182 00066 |
| .1906  | .1894 48063  | .9818 90743  | .1917 56129  | .0182 19236  |
| .1907  | .1895 46252  | .9818 71793  | .1918 57952  | .0182 38417  |
| .1908  | .1896 44438  | .9818 52834  | .1919 59777  | .0182 57608  |
| .1909  | .1897 42622  | .9818 33864  | .1920 61603  | .0182 76809  |
| 0.1910 | 0.1898 40805 | 0.9818 14885 | 0.1921 63432 | 1.0182 96020 |
| .1911  | .1899 38985  | .9817 95896  | .1922 65263  | .0183 15242  |
| .1912  | .1900 37164  | .9817 76897  | .1923 67095  | .0183 34473  |
| .1913  | .1901 35341  | .9817 57889  | .1924 68929  | .0183 53715  |
| .1914  | .1902 33515  | .9817 38870  | .1925 70766  | .0183 72967  |
| 0.1915 | 0.1903 31688 | 0.9817 19842 | 0.1926 72604 | 1.0183 92229 |
| .1916  | .1904 29859  | .9817 00804  | .1927 74444  | .0184 11501  |
| .1917  | .1905 28028  | .9816 81756  | .1928 76286  | .0184 30784  |
| .1918  | .1906 26196  | .9816 62698  | .1929 78130  | .0184 50077  |
| .1919  | .1907 24361  | .9816 43631  | .1930 79976  | .0184 69380  |
| 0.1920 | 0.1908 22524 | 0.9816 24554 | 0.1931 81824 | 1.0184 88693 |
| .1921  | .1909 20686  | .9816 05466  | .1932 83674  | .0185 08016  |
| .1922  | .1910 18846  | .9815 86369  | .1933 85526  | .0185 27349  |
| .1923  | .1911 17003  | .9815 67263  | .1934 87380  | .0185 46693  |
| .1924  | .1912 15159  | .9815 48146  | .1935 89235  | .0185 66047  |
| 0.1925 | 0.1913 13313 | 0.9815 29020 | 0.1936 91093 | 1.0185 85411 |
| .1926  | .1914 11465  | .9815 09883  | .1937 92952  | .0186 04785  |
| .1927  | .1915 09615  | .9814 90737  | .1938 94814  | .0186 24170  |
| .1928  | .1916 07763  | .9814 71581  | .1939 96677  | .0186 43564  |
| .1929  | .1917 05909  | .9814 52416  | .1940 98542  | .0186 62969  |
| 0.1930 | 0.1918 04053 | 0.9814 33240 | 0.1942 00410 | 1.0186 82384 |
| .1931  | .1919 02196  | .9814 14055  | .1943 02279  | .0187 01809  |
| .1932  | .1920 00336  | .9813 94860  | .1944 04150  | .0187 21244  |
| .1933  | .1920 98475  | .9813 75655  | .1945 06023  | .0187 40690  |
| .1934  | .1921 96611  | .9813 56440  | .1946 07898  | .0187 60145  |
| 0.1935 | 0.1922 94746 | 0.9813 37216 | 0.1947 09775 | 1.0187 79611 |
| .1936  | .1923 92879  | .9813 17981  | .1948 11654  | .0187 99087  |
| .1937  | .1924 91010  | .9812 98737  | .1949 13535  | .0188 18574  |
| .1938  | .1925 89139  | .9812 79483  | .1950 15418  | .0188 38070  |
| .1939  | .1926 87266  | .9812 60219  | .1951 17303  | .0188 57577  |
| 0.1940 | 0.1927 85391 | 0.9812 40946 | 0.1952 19189 | 1.0188 77094 |
| .1941  | .1928 83514  | .9812 21662  | .1953 21078  | .0188 96621  |
| .1942  | .1929 81635  | .9812 02369  | .1954 22969  | .0189 16158  |
| .1943  | .1930 79754  | .9811 83066  | .1955 24861  | .0189 35705  |
| .1944  | .1931 77872  | .9811 63753  | .1956 26756  | .0189 55263  |
| 0.1945 | 0.1932 75987 | 0.9811 44430 | 0.1957 28652 | 1.0189 74831 |
| .1946  | .1933 74100  | .9811 25098  | .1958 30551  | .0189 94409  |
| .1947  | .1934 72212  | .9811 05755  | .1959 32451  | .0190 13997  |
| .1948  | .1935 70322  | .9810 86403  | .1960 34354  | .0190 33595  |
| .1949  | .1936 68429  | .9810 67041  | .1961 36258  | .0190 53204  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.1950 | 0.1937 66535 | 0.9810 47670 | 0.1962 38164 | 1.0190 72822 |
| .1951  | .1938 64639  | .9810 28288  | .1963 40072  | .0190 92481  |
| .1952  | .1939 62741  | .9810 08897  | .1964 41983  | .0191 12090  |
| .1953  | .1940 60841  | .9809 89495  | .1965 43895  | .0191 31740  |
| .1954  | .1941 58939  | .9809 70084  | .1966 45809  | .0191 51399  |
| 0.1955 | 0.1942 57035 | 0.9809 50664 | 0.1967 47725 | 1.0191 71069 |
| .1956  | .1943 55129  | .9809 31233  | .1968 49643  | .0191 90749  |
| .1957  | .1944 53221  | .9809 11793  | .1969 51563  | .0192 10439  |
| .1958  | .1945 51311  | .9808 92342  | .1970 53485  | .0192 30139  |
| .1959  | .1946 49399  | .9808 72882  | .1971 55409  | .0192 49849  |
| 0.1960 | 0.1947 47486 | 0.9808 53413 | 0.1972 57335 | 1.0192 69570 |
| .1961  | .1948 45570  | .9808 33933  | .1973 59263  | .0192 89301  |
| .1962  | .1949 43652  | .9808 14443  | .1974 61193  | .0193 09042  |
| .1963  | .1950 41733  | .9807 94944  | .1975 63125  | .0193 28793  |
| .1964  | .1951 39811  | .9807 75435  | .1976 65059  | .0193 48554  |
| 0.1965 | 0.1952 37888 | 0.9807 55916 | 0.1977 66995 | 1.0193 68326 |
| .1966  | .1953 35963  | .9807 36387  | .1978 68933  | .0193 88108  |
| .1967  | .1954 34035  | .9807 16849  | .1979 70872  | .0194 07900  |
| .1968  | .1955 32106  | .9806 97301  | .1980 72814  | .0194 27702  |
| .1969  | .1956 30175  | .9806 77743  | .1981 74758  | .0194 47514  |
| 0.1970 | 0.1957 28241 | 0.9806 58175 | 0.1982 76704 | 1.0194 67337 |
| .1971  | .1958 26306  | .9806 38597  | .1983 78651  | .0194 87170  |
| .1972  | .1959 24369  | .9806 19009  | .1984 80601  | .0195 07013  |
| .1973  | .1960 22430  | .9805 99412  | .1985 82553  | .0195 26866  |
| .1974  | .1961 20489  | .9805 79805  | .1986 84507  | .0195 46729  |
| 0.1975 | 0.1962 18546 | 0.9805 60188 | 0.1987 86462 | 1.0195 66603 |
| .1976  | .1963 16601  | .9805 40561  | .1988 88420  | .0195 86487  |
| .1977  | .1964 14654  | .9805 20925  | .1989 90379  | .0196 06380  |
| .1978  | .1965 12705  | .9805 01278  | .1990 92341  | .0196 26285  |
| .1979  | .1966 10754  | .9804 81622  | .1991 94305  | .0196 46199  |
| 0.1980 | 0.1967 08802 | 0.9804 61956 | 0.1992 96270 | 1.0196 66123 |
| .1981  | .1968 06847  | .9804 42280  | .1993 98238  | .0196 86058  |
| .1982  | .1969 04890  | .9804 22595  | .1995 00208  | .0197 06003  |
| .1983  | .1970 02931  | .9804 02899  | .1996 02179  | .0197 25958  |
| .1984  | .1971 00971  | .9803 83194  | .1997 04153  | .0197 45924  |
| 0.1985 | 0.1971 99008 | 0.9803 63479 | 0.1998 06128 | 1.0197 65899 |
| .1986  | .1972 97043  | .9803 43754  | .1999 08106  | .0197 85885  |
| .1987  | .1973 95077  | .9803 24020  | .2000 10086  | .0198 05881  |
| .1988  | .1974 93108  | .9803 04275  | .2001 12067  | .0198 25887  |
| .1989  | .1975 91138  | .9802 84521  | .2002 14051  | .0198 45903  |
| 0.1990 | 0.1976 89165 | 0.9802 64757 | 0.2003 16036 | 1.0198 65930 |
| .1991  | .1977 87191  | .9802 44983  | .2004 18024  | .0198 85966  |
| .1992  | .1978 85214  | .9802 25200  | .2005 20013  | .0199 06013  |
| .1993  | .1979 83236  | .9802 05406  | .2006 22005  | .0199 26070  |
| .1994  | .1980 81255  | .9801 85603  | .2007 23999  | .0199 46138  |
| 0.1995 | 0.1981 79273 | 0.9801 65790 | 0.2008 25994 | 1.0199 66215 |
| .1996  | .1982 77288  | .9801 45967  | .2009 27992  | .0199 86303  |
| .1997  | .1983 75302  | .9801 26135  | .2010 29992  | .0200 06401  |
| .1998  | .1984 73314  | .9801 06292  | .2011 31993  | .0200 26509  |
| .1999  | .1985 71323  | .9800 86440  | .2012 33997  | .0200 46627  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.2000 | 0.1986 69331 | 0.9800 66578 | 0.2013 36003 | 1.0200 66756 |
| .2001  | .1987 67336  | .9800 46706  | .2014 38010  | .0200 86894  |
| .2002  | .1988 65340  | .9800 26824  | .2015 40020  | .0201 07043  |
| .2003  | .1989 63342  | .9800 06933  | .2016 42032  | .0201 27202  |
| .2004  | .1990 61342  | .9799 87032  | .2017 44045  | .0201 47372  |
| 0.2005 | 0.1991 59339 | 0.9799 67121 | 0.2018 46061 | 1.0201 67551 |
| .2006  | .1992 57335  | .9799 47200  | .2019 48079  | .0201 87741  |
| .2007  | .1993 55329  | .9799 27269  | .2020 50099  | .0202 07941  |
| .2008  | .1994 53320  | .9799 07329  | .2021 52120  | .0202 28151  |
| .2009  | .1995 51310  | .9798 87379  | .2022 54144  | .0202 48371  |
| 0.2010 | 0.1996 49298 | 0.9798 67419 | 0.2023 56170 | 1.0202 68602 |
| .2011  | .1997 47284  | .9798 47449  | .2024 58198  | .0202 88842  |
| .2012  | .1998 45267  | .9798 27469  | .2025 60228  | .0203 09093  |
| .2013  | .1999 43249  | .9798 07480  | .2026 62260  | .0203 29354  |
| .2014  | .2000 41229  | .9797 87480  | .2027 64294  | .0203 49626  |
| 0.2015 | 0.2001 39207 | 0.9797 67471 | 0.2028 66330 | 1.0203 69907 |
| .2016  | .2002 37182  | .9797 47453  | .2029 68368  | .0203 90199  |
| .2017  | .2003 35156  | .9797 27424  | .2030 70408  | .0204 10501  |
| .2018  | .2004 33128  | .9797 07386  | .2031 72450  | .0204 30813  |
| .2019  | .2005 31098  | .9796 87337  | .2032 74494  | .0204 51135  |
| 0.2020 | 0.2006 29065 | 0.9796 67279 | 0.2033 76540 | 1.0204 71468 |
| .2021  | .2007 27031  | .9796 47212  | .2034 78588  | .0204 91811  |
| .2022  | .2008 24995  | .9796 27134  | .2035 80638  | .0205 12164  |
| .2023  | .2009 22956  | .9796 07047  | .2036 82691  | .0205 32527  |
| .2024  | .2010 20916  | .9795 86949  | .2037 84745  | .0205 52900  |
| 0.2025 | 0.2011 18874 | 0.9795 66842 | 0.2038 86801 | 1.0205 73284 |
| .2026  | .2012 16830  | .9795 46726  | .2039 88860  | .0205 93678  |
| .2027  | .2013 14783  | .9795 26599  | .2040 90920  | .0206 14082  |
| .2028  | .2014 12735  | .9795 06463  | .2041 92982  | .0206 34496  |
| .2029  | .2015 10684  | .9794 86316  | .2042 95047  | .0206 54920  |
| 0.2030 | 0.2016 08632 | 0.9794 66160 | 0.2043 97113 | 1.0206 75355 |
| .2031  | .2017 06578  | .9794 45995  | .2044 99182  | .0206 95800  |
| .2032  | .2018 04521  | .9794 25819  | .2045 01253  | .0207 16255  |
| .2033  | .2019 02461  | .9794 05634  | .2047 03325  | .0207 36720  |
| .2034  | .2020 00402  | .9793 85439  | .2048 05400  | .0207 57195  |
| 0.2035 | 0.2020 98340 | 0.9793 65234 | 0.2049 07477 | 1.0207 77681 |
| .2036  | .2021 96275  | .9793 45019  | .2050 09555  | .0207 98177  |
| .2037  | .2022 94209  | .9793 24794  | .2051 11636  | .0208 18683  |
| .2038  | .2023 92140  | .9793 04560  | .2052 13719  | .0208 39199  |
| .2039  | .2024 90070  | .9792 84316  | .2053 15804  | .0208 59726  |
| 0.2040 | 0.2025 87997 | 0.9792 64062 | 0.2054 17891 | 1.0208 80262 |
| .2041  | .2026 85923  | .9792 43798  | .2055 19980  | .0209 00809  |
| .2042  | .2027 83846  | .9792 23525  | .2056 22071  | .0209 21366  |
| .2043  | .2028 81767  | .9792 03242  | .2057 24164  | .0209 41934  |
| .2044  | .2029 79687  | .9791 82949  | .2058 26260  | .0209 62511  |
| 0.2045 | 0.2030 77604 | 0.9791 62646 | 0.2059 28357 | 1.0209 83099 |
| .2046  | .2031 75519  | .9791 42333  | .2060 30456  | .0210 03697  |
| .2047  | .2032 73432  | .9791 22011  | .2061 32558  | .0210 24305  |
| .2048  | .2033 71344  | .9791 01678  | .2062 34661  | .0210 44923  |
| .2049  | .2034 69253  | .9790 81336  | .2063 36767  | .0210 65552  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.2050 | 0.2035 67160 | 0.9790 60985 | 0.2064 58874 | 1.0210 86191 |
| .2051  | .2036 65065  | .9790 40623  | .2065 40984  | .0211 06340  |
| .2052  | .2037 62968  | .9790 20252  | .2066 43096  | .0211 27499  |
| .2053  | .2038 60869  | .9789 99870  | .2067 45209  | .0211 48168  |
| .2054  | .2039 58768  | .9789 79479  | .2068 47325  | .0211 68848  |
| 0.2055 | 0.2040 56665 | 0.9789 59079 | 0.2069 49443 | 1.0211 89538 |
| .2056  | .2041 54560  | .9789 38668  | .2070 51563  | .0212 10238  |
| .2057  | .2042 52453  | .9789 18248  | .2071 53685  | .0212 30948  |
| .2058  | .2043 50343  | .9788 97818  | .2072 55809  | .0212 51669  |
| .2059  | .2044 48232  | .9788 77378  | .2073 57936  | .0212 72399  |
| 0.2060 | 0.2045 46119 | 0.9788 56928 | 0.2074 60064 | 1.0212 93140 |
| .2061  | .2046 44004  | .9788 36468  | .2075 62194  | .0213 13891  |
| .2062  | .2047 41886  | .9788 15999  | .2076 64327  | .0213 34653  |
| .2063  | .2048 39767  | .9787 95520  | .2077 66461  | .0213 55424  |
| .2064  | .2049 37645  | .9787 75031  | .2078 68598  | .0213 76206  |
| 0.2065 | 0.2050 35522 | 0.9787 54532 | 0.2079 70736 | 1.0213 96998 |
| .2066  | .2051 33396  | .9787 34024  | .2080 72877  | .0214 17800  |
| .2067  | .2052 31269  | .9787 13506  | .2081 75020  | .0214 38612  |
| .2068  | .2053 29139  | .9786 92978  | .2082 77165  | .0214 59435  |
| .2069  | .2054 27007  | .9786 72440  | .2083 79312  | .0214 80268  |
| 0.2070 | 0.2055 24873 | 0.9786 51892 | 0.2084 81461 | 1.0215 01111 |
| .2071  | .2056 22738  | .9786 31355  | .2085 83612  | .0215 21964  |
| .2072  | .2057 20600  | .9786 10768  | .2086 85765  | .0215 42828  |
| .2073  | .2058 18460  | .9785 90191  | .2087 87921  | .0215 63701  |
| .2074  | .2059 16318  | .9785 69604  | .2088 90078  | .0215 84585  |
| 0.2075 | 0.2060 14174 | 0.9785 49008 | 0.2089 92238 | 1.0216 05479 |
| .2076  | .2061 12028  | .9785 28401  | .2090 94399  | .0216 26384  |
| .2077  | .2062 09879  | .9785 07785  | .2091 96563  | .0216 47298  |
| .2078  | .2063 07729  | .9784 87159  | .2092 98729  | .0216 68223  |
| .2079  | .2064 05577  | .9784 66524  | .2094 00896  | .0216 89158  |
| 0.2080 | 0.2065 03422 | 0.9784 45878 | 0.2095 03066 | 1.0217 10103 |
| .2081  | .2066 01266  | .9784 25223  | .2096 05238  | .0217 31059  |
| .2082  | .2066 99107  | .9784 04558  | .2097 07413  | .0217 52024  |
| .2083  | .2067 96947  | .9783 83883  | .2098 09589  | .0217 73000  |
| .2084  | .2068 94784  | .9783 63199  | .2099 11767  | .0217 93986  |
| 0.2085 | 0.2069 92620 | 0.9783 42504 | 0.2100 13948 | 1.0218 14982 |
| .2086  | .2070 90453  | .9783 21800  | .2101 16130  | .0218 35989  |
| .2087  | .2071 88284  | .9783 01086  | .2102 18315  | .0218 57006  |
| .2088  | .2072 86113  | .9782 80362  | .2103 20502  | .0218 78033  |
| .2089  | .2073 83940  | .9782 59629  | .2104 22690  | .0218 99070  |
| 0.2090 | 0.2074 81765 | 0.9782 38886 | 0.2105 24881 | 1.0219 20117 |
| .2091  | .2075 79588  | .9782 18133  | .2106 27075  | .0219 41175  |
| .2092  | .2076 77408  | .9781 97370  | .2107 29270  | .0219 62243  |
| .2093  | .2077 75227  | .9781 76597  | .2108 31467  | .0219 83321  |
| .2094  | .2078 73044  | .9781 55815  | .2109 33666  | .0220 04409  |
| 0.2095 | 0.2079 70858 | 0.9781 35022 | 0.2110 35868 | 1.0220 25507 |
| .2096  | .2080 68671  | .9781 14220  | .2111 38071  | .0220 46616  |
| .2097  | .2081 66481  | .9780 93409  | .2112 40277  | .0220 67735  |
| .2098  | .2082 64289  | .9780 72587  | .2113 42485  | .0220 88864  |
| .2099  | .2083 62096  | .9780 51756  | .2114 44695  | .0221 10003  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.2100 | 0.2084 59900 | 0.9780 30915 | 0.2115 46907 | 1.0221 31153 |
| .2101  | .2085 57702  | .9780 10064  | .2116 49121  | .0221 52313  |
| .2102  | .2086 55502  | .9779 89203  | .2117 51337  | .0221 73483  |
| .2103  | .2087 53300  | .9779 68333  | .2118 53556  | .0221 94663  |
| .2104  | .2088 51096  | .9779 47453  | .2119 55776  | .0222 15853  |
| 0.2105 | 0.2089 48889 | 0.9779 26563 | 0.2120 57999 | 1.0222 37054 |
| .2106  | .2090 46681  | .9779 05663  | .2121 60224  | .0222 58265  |
| .2107  | .2091 44470  | .9778 84753  | .2122 62451  | .0222 79486  |
| .2108  | .2092 42258  | .9778 63834  | .2123 64680  | .0223 00718  |
| .2109  | .2093 40043  | .9778 42905  | .2124 66911  | .0223 21959  |
| 0.2110 | 0.2094 37826 | 0.9778 21966 | 0.2125 69144 | 1.0223 43211 |
| .2111  | .2095 35608  | .9778 01017  | .2126 71379  | .0223 64473  |
| .2112  | .2096 33387  | .9777 80059  | .2127 73617  | .0223 85745  |
| .2113  | .2097 31164  | .9777 59090  | .2128 75857  | .0224 07028  |
| .2114  | .2098 28938  | .9777 38112  | .2129 78098  | .0224 28320  |
| 0.2115 | 0.2099 26711 | 0.9777 17125 | 0.2130 80342 | 1.0224 49623 |
| .2116  | .2100 24482  | .9776 96127  | .2131 82588  | .0224 70936  |
| .2117  | .2101 22250  | .9776 75120  | .2132 84836  | .0224 92260  |
| .2118  | .2102 20017  | .9776 54103  | .2133 87087  | .0225 13593  |
| .2119  | .2103 17781  | .9776 33076  | .2134 89339  | .0225 34937  |
| 0.2120 | 0.2104 15543 | 0.9776 12039 | 0.2135 91594 | 1.0225 56291 |
| .2121  | .2105 13304  | .9775 90993  | .2136 93850  | .0225 77656  |
| .2122  | .2106 11062  | .9775 69936  | .2137 96109  | .0225 99030  |
| .2123  | .2107 08818  | .9775 48870  | .2138 98370  | .0226 20415  |
| .2124  | .2108 06571  | .9775 27795  | .2140 00633  | .0226 41810  |
| 0.2125 | 0.2109 04323 | 0.9775 06709 | 0.2141 02899 | 1.0226 63215 |
| .2126  | .2110 02073  | .9774 85614  | .2142 05166  | .0226 84630  |
| .2127  | .2110 99820  | .9774 64509  | .2143 07436  | .0227 06056  |
| .2128  | .2111 97566  | .9774 43394  | .2144 09707  | .0227 27492  |
| .2129  | .2112 95309  | .9774 22269  | .2145 11981  | .0227 48938  |
| 0.2130 | 0.2113 93050 | 0.9774 01135 | 0.2146 14257 | 1.0227 70394 |
| .2131  | .2114 90789  | .9773 79991  | .2147 16535  | .0227 91861  |
| .2132  | .2115 88526  | .9773 58837  | .2148 18815  | .0228 13338  |
| .2133  | .2116 86261  | .9773 37673  | .2149 21098  | .0228 34825  |
| .2134  | .2117 83994  | .9773 16499  | .2150 23382  | .0228 56322  |
| 0.2135 | 0.2118 81724 | 0.9772 95316 | 0.2151 25669 | 1.0228 77829 |
| .2136  | .2119 79453  | .9772 74123  | .2152 27958  | .0228 99347  |
| .2137  | .2120 77179  | .9772 52920  | .2153 30249  | .0229 20875  |
| .2138  | .2121 74903  | .9772 31708  | .2154 32542  | .0229 42413  |
| .2139  | .2122 72625  | .9772 10485  | .2155 34837  | .0229 63961  |
| 0.2140 | 0.2123 70345 | 0.9771 89253 | 0.2156 37135 | 1.0229 85520 |
| .2141  | .2124 68063  | .9771 68011  | .2157 39435  | .0230 07089  |
| .2142  | .2125 65779  | .9771 46759  | .2158 41736  | .0230 28668  |
| .2143  | .2126 63493  | .9771 25498  | .2159 44040  | .0230 50257  |
| .2144  | .2127 61204  | .9771 04227  | .2160 46346  | .0230 71857  |
| 0.2145 | 0.2128 58913 | 0.9770 82946 | 0.2161 48655 | 1.0230 93466 |
| .2146  | .2129 56621  | .9770 61655  | .2162 50965  | .0231 15086  |
| .2147  | .2130 54326  | .9770 40354  | .2163 53278  | .0231 36717  |
| .2148  | .2131 52029  | .9770 19044  | .2164 55592  | .0231 58357  |
| .2149  | .2132 49730  | .9769 97724  | .2165 57909  | .0231 80008  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.2150 | 0.2133 47428 | 0.9769 76394 | 0.2166 60228 | 1.0232 01669 |
| .2151  | .2134 45125  | .9769 55055  | .2167 62550  | .0232 23340  |
| .2152  | .2135 42819  | .9769 33705  | .2168 64873  | .0232 45021  |
| .2153  | .2136 40512  | .9769 12346  | .2169 67199  | .0232 66713  |
| .2154  | .2137 38202  | .9768 90977  | .2170 69526  | .0232 88415  |
| 0.2155 | 0.2138 35890 | 0.9768 69598 | 0.2171 71856 | 1.0233 10127 |
| .2156  | .2139 33576  | .9768 48210  | .2172 74188  | .0233 31849  |
| .2157  | .2140 31259  | .9768 26812  | .2173 76523  | .0233 53581  |
| .2158  | .2141 28941  | .9768 05404  | .2174 78859  | .0233 75324  |
| .2159  | .2142 26621  | .9767 83986  | .2175 81198  | .0233 97077  |
| 0.2160 | 0.2143 24298 | 0.9767 62558 | 0.2176 83539 | 1.0234 18840 |
| .2161  | .2144 21973  | .9767 41121  | .2177 85882  | .0234 40614  |
| .2162  | .2145 19646  | .9767 19674  | .2178 88227  | .0234 62398  |
| .2163  | .2146 17317  | .9766 98217  | .2179 90574  | .0234 84192  |
| .2164  | .2147 14986  | .9766 76750  | .2180 92924  | .0235 05996  |
| 0.2165 | 0.2148 12652 | 0.9766 55274 | 0.2181 95275 | 1.0235 27810 |
| .2166  | .2149 10317  | .9766 33788  | .2182 97629  | .0235 49635  |
| .2167  | .2150 07979  | .9766 12292  | .2183 99985  | .0235 71470  |
| .2168  | .2151 05639  | .9765 90786  | .2185 02343  | .0235 93315  |
| .2169  | .2152 03297  | .9765 69271  | .2186 04704  | .0236 15170  |
| 0.2170 | 0.2153 00953 | 0.9765 47746 | 0.2187 07066 | 1.0236 37036 |
| .2171  | .2153 98607  | .9765 26211  | .2188 09431  | .0236 58912  |
| .2172  | .2154 96258  | .9765 04666  | .2189 11798  | .0236 80798  |
| .2173  | .2155 93908  | .9764 83111  | .2190 14167  | .0237 02694  |
| .2174  | .2156 91555  | .9764 61547  | .2191 16539  | .0237 24600  |
| 0.2175 | 0.2157 89200 | 0.9764 39973 | 0.2192 18912 | 1.0237 46517 |
| .2176  | .2158 86843  | .9764 18389  | .2193 21288  | .0237 68444  |
| .2177  | .2159 84484  | .9763 96796  | .2194 23666  | .0237 90381  |
| .2178  | .2160 82122  | .9763 75192  | .2195 26046  | .0238 12329  |
| .2179  | .2161 79759  | .9763 53579  | .2196 28428  | .0238 34287  |
| 0.2180 | 0.2162 77393 | 0.9763 31956 | 0.2197 30813 | 1.0238 56255 |
| .2181  | .2163 75025  | .9763 10324  | .2198 33200  | .0238 78233  |
| .2182  | .2164 72655  | .9762 88681  | .2199 35589  | .0239 00221  |
| .2183  | .2165 70283  | .9762 67029  | .2200 37980  | .0239 22220  |
| .2184  | .2166 67908  | .9762 45367  | .2201 40373  | .0239 44229  |
| 0.2185 | 0.2167 65532 | 0.9762 23696 | 0.2202 42769 | 1.0239 66248 |
| .2186  | .2168 63153  | .9762 02014  | .2203 45166  | .0239 88277  |
| .2187  | .2169 60772  | .9761 80323  | .2204 47566  | .0240 10317  |
| .2188  | .2170 58389  | .9761 58622  | .2205 49968  | .0240 32367  |
| .2189  | .2171 56004  | .9761 36911  | .2206 52373  | .0240 54427  |
| 0.2190 | 0.2172 53617 | 0.9761 15191 | 0.2207 54779 | 1.0240 76497 |
| .2191  | .2173 51227  | .9760 93461  | .2208 57188  | .0240 98578  |
| .2192  | .2174 48835  | .9760 71721  | .2209 59599  | .0241 20669  |
| .2193  | .2175 46441  | .9760 49971  | .2210 62012  | .0241 42770  |
| .2194  | .2176 44045  | .9760 28211  | .2211 64428  | .0241 64881  |
| 0.2195 | 0.2177 41647 | 0.9760 06442 | 0.2212 66845 | 1.0241 87003 |
| .2196  | .2178 39247  | .9759 84663  | .2213 69265  | .0242 09135  |
| .2197  | .2179 36844  | .9759 62874  | .2214 71687  | .0242 31277  |
| .2198  | .2180 34439  | .9759 41076  | .2215 74111  | .0242 53429  |
| .2199  | .2181 32032  | .9759 19267  | .2216 76538  | .0242 75591  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.2200 | 0.2182 29623 | 0.9758 97449 | 0.2217 78966 | 1.0242 97764 |
| .2201  | .2183 27212  | .9758 75621  | .2218 81397  | .0243 19947  |
| .2202  | .2184 24798  | .9758 53784  | .2219 83830  | .0243 42141  |
| .2203  | .2185 22582  | .9758 31937  | .2220 86266  | .0243 64344  |
| .2204  | .2186 19965  | .9758 10079  | .2221 88703  | .0243 86558  |
| 0.2205 | 0.2187 17545 | 0.9757 88213 | 0.2222 91143 | 1.0244 08782 |
| .2206  | .2188 15122  | .9757 66336  | .2223 93585  | .0244 31016  |
| .2207  | .2189 12698  | .9757 44450  | .2224 96029  | .0244 53261  |
| .2208  | .2190 10271  | .9757 22553  | .2225 98476  | .0244 75515  |
| .2209  | .2191 07842  | .9757 00647  | .2227 00924  | .0244 97780  |
| 0.2210 | 0.2192 05411 | 0.9756 78732 | 0.2228 03375 | 1.0245 20055 |
| .2211  | .2193 02978  | .9756 56806  | .2229 05828  | .0245 42341  |
| .2212  | .2194 00543  | .9756 34871  | .2230 08284  | .0245 64637  |
| .2213  | .2194 98105  | .9756 12926  | .2231 10741  | .0245 86943  |
| .2214  | .2195 95665  | .9755 90972  | .2232 13201  | .0246 09259  |
| 0.2215 | 0.2196 93223 | 0.9755 69007 | 0.2233 15663 | 1.0246 31585 |
| .2216  | .2197 90779  | .9755 47033  | .2234 18127  | .0246 53922  |
| .2217  | .2198 88333  | .9755 25049  | .2235 20594  | .0246 76269  |
| .2218  | .2199 85884  | .9755 03055  | .2236 23063  | .0246 98626  |
| .2219  | .2200 83433  | .9754 81052  | .2237 25534  | .0247 20993  |
| 0.2220 | 0.2201 80980 | 0.9754 59039 | 0.2238 28007 | 1.0247 43371 |
| .2221  | .2202 78525  | .9754 37016  | .2239 30482  | .0247 65759  |
| .2222  | .2203 76068  | .9754 14983  | .2240 32960  | .0247 88157  |
| .2223  | .2204 73608  | .9753 92940  | .2241 35440  | .0248 10566  |
| .2224  | .2205 71146  | .9753 70888  | .2242 37922  | .0248 32984  |
| 0.2225 | 0.2206 68682 | 0.9753 48826 | 0.2243 40406 | 1.0248 55413 |
| .2226  | .2207 66216  | .9753 26754  | .2244 42893  | .0248 77852  |
| .2227  | .2208 63748  | .9753 04673  | .2245 45382  | .0249 00302  |
| .2228  | .2209 61277  | .9752 82582  | .2246 47873  | .0249 22761  |
| .2229  | .2210 58804  | .9752 60481  | .2247 50367  | .0249 45231  |
| 0.2230 | 0.2211 56329 | 0.9752 38370 | 0.2248 52862 | 1.0249 67712 |
| .2231  | .2212 53852  | .9752 16249  | .2249 55360  | .0249 90202  |
| .2232  | .2213 51372  | .9751 94119  | .2250 57860  | .0250 12703  |
| .2233  | .2214 48891  | .9751 71979  | .2251 60363  | .0250 35213  |
| .2234  | .2215 46407  | .9751 49829  | .2252 62867  | .0250 57735  |
| 0.2235 | 0.2216 43921 | 0.9751 27670 | 0.2253 65374 | 1.0250 80266 |
| .2236  | .2217 41432  | .9751 05501  | .2254 67883  | .0251 02808  |
| .2237  | .2218 38942  | .9750 83322  | .2255 70395  | .0251 25360  |
| .2238  | .2219 36449  | .9750 61133  | .2256 72908  | .0251 47922  |
| .2239  | .2220 33954  | .9750 38934  | .2257 75424  | .0251 70494  |
| 0.2240 | 0.2221 31457 | 0.9750 16726 | 0.2258 77943 | 1.0251 93077 |
| .2241  | .2222 28957  | .9749 94508  | .2259 80463  | .0252 15670  |
| .2242  | .2223 26456  | .9749 72280  | .2260 82986  | .0252 38273  |
| .2243  | .2224 23952  | .9749 50043  | .2261 85511  | .0252 60886  |
| .2244  | .2225 21446  | .9749 27795  | .2262 88038  | .0252 83510  |
| 0.2245 | 0.2226 18937 | 0.9749 05538 | 0.2263 90567 | 1.0253 06144 |
| .2246  | .2227 16427  | .9748 83272  | .2264 93099  | .0253 28788  |
| .2247  | .2228 13914  | .9748 60995  | .2265 95633  | .0253 51443  |
| .2248  | .2229 11399  | .9748 38709  | .2266 98169  | .0253 74107  |
| .2249  | .2230 08882  | .9748 16413  | .2268 00708  | .0253 96782  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.2250 | 0.2231 06362 | 0.9747 94107 | 0.2269 03249 | 1.0254 19467 |
| .2251  | .2232 03840  | .9747 71792  | .2270 05792  | .0254 42163  |
| .2252  | .2233 01316  | .9747 49466  | .2271 08337  | .0254 64869  |
| .2253  | .2233 98790  | .9747 27131  | .2272 10885  | .0254 87585  |
| .2254  | .2234 96262  | .9747 04787  | .2273 13435  | .0255 10311  |
| 0.2255 | 0.2235 93731 | 0.9746 82432 | 0.2274 15987 | 1.0255 33047 |
| .2256  | .2236 91198  | .9746 60068  | .2275 18541  | .0255 55794  |
| .2257  | .2237 88663  | .9746 37694  | .2276 21098  | .0255 78551  |
| .2258  | .2238 86126  | .9746 15310  | .2277 23657  | .0256 01318  |
| .2259  | .2239 83586  | .9745 92917  | .2278 26218  | .0256 24096  |
| 0.2260 | 0.2240 81045 | 0.9745 70513 | 0.2279 28782 | 1.0256 46883 |
| .2261  | .2241 78500  | .9745 48100  | .2280 31348  | .0256 69681  |
| .2262  | .2242 75954  | .9745 25678  | .2281 33916  | .0256 92490  |
| .2263  | .2243 73406  | .9745 03245  | .2282 36486  | .0257 15308  |
| .2264  | .2244 70855  | .9744 80803  | .2283 39059  | .0257 38137  |
| 0.2265 | 0.2245 68302 | 0.9744 58351 | 0.2284 41634 | 1.0257 60976 |
| .2266  | .2246 65746  | .9744 35889  | .2285 44211  | .0257 83825  |
| .2267  | .2247 63189  | .9744 13418  | .2286 46791  | .0258 06685  |
| .2268  | .2248 60629  | .9743 90937  | .2287 49372  | .0258 29555  |
| .2269  | .2249 58067  | .9743 68446  | .2288 51956  | .0258 52435  |
| 0.2270 | 0.2250 55503 | 0.9743 45945 | 0.2289 54543 | 1.0258 75325 |
| .2271  | .2251 52936  | .9743 23435  | .2290 57132  | .0258 98226  |
| .2272  | .2252 50368  | .9743 00914  | .2291 59722  | .0259 21137  |
| .2273  | .2253 47796  | .9742 78385  | .2292 62316  | .0259 44058  |
| .2274  | .2254 45223  | .9742 55845  | .2293 64911  | .0259 66989  |
| 0.2275 | 0.2255 42648 | 0.9742 33296 | 0.2294 67509 | 1.0259 89931 |
| .2276  | .2256 40070  | .9742 10736  | .2295 70109  | .0260 12883  |
| .2277  | .2257 37490  | .9741 88168  | .2296 72712  | .0260 35845  |
| .2278  | .2258 34907  | .9741 65589  | .2297 75316  | .0260 58817  |
| .2279  | .2259 32323  | .9741 43001  | .2298 77923  | .0260 81800  |
| 0.2280 | 0.2260 29736 | 0.9741 20402 | 0.2299 80533 | 1.0261 04793 |
| .2281  | .2261 27147  | .9740 97795  | .2300 83144  | .0261 27796  |
| .2282  | .2262 24556  | .9740 75177  | .2301 85758  | .0261 50809  |
| .2283  | .2263 21962  | .9740 52550  | .2302 88375  | .0261 73833  |
| .2284  | .2264 19366  | .9740 29913  | .2303 90993  | .0261 96867  |
| 0.2285 | 0.2265 16768 | 0.9740 07266 | 0.2304 93614 | 1.0262 19911 |
| .2286  | .2266 14168  | .9739 84609  | .2305 96237  | .0262 42966  |
| .2287  | .2267 11565  | .9739 61943  | .2306 98863  | .0262 66030  |
| .2288  | .2268 08960  | .9739 39267  | .2308 01490  | .0262 89105  |
| .2289  | .2269 06353  | .9739 16581  | .2309 04120  | .0263 12191  |
| 0.2290 | 0.2270 03743 | 0.9738 93886 | 0.2310 06753 | 1.0263 35286 |
| .2291  | .2271 01132  | .9738 71180  | .2311 09387  | .0263 58392  |
| .2292  | .2271 98518  | .9738 48465  | .2312 12024  | .0263 81508  |
| .2293  | .2272 95901  | .9738 25741  | .2313 14664  | .0264 04634  |
| .2294  | .2273 93283  | .9738 03006  | .2314 17305  | .0264 27771  |
| 0.2295 | 0.2274 90662 | 0.9737 80262 | 0.2315 19949 | 1.0264 50918 |
| .2296  | .2275 88039  | .9737 57508  | .2316 22596  | .0264 74075  |
| .2297  | .2276 85413  | .9737 34744  | .2317 25244  | .0264 97242  |
| .2298  | .2277 82786  | .9737 11971  | .2318 27895  | .0265 20420  |
| .2299  | .2278 80156  | .9736 89188  | .2319 30548  | .0265 43608  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.2300 | 0.2279 77524 | 0.9736 66395 | 0.2320 33204 | 1.0265 66806 |
| .2301  | .2280 74889  | .9736 43592  | .2321 35862  | .0265 90015  |
| .2302  | .2281 72252  | .9736 20780  | .2322 38522  | .0266 13233  |
| .2303  | .2282 69613  | .9735 97958  | .2323 41184  | .0266 36462  |
| .2304  | .2283 66972  | .9735 75126  | .2324 43849  | .0266 59702  |
| 0.2305 | 0.2284 64328 | 0.9735 52285 | 0.2325 46516 | 1.0266 82951 |
| .2306  | .2285 61682  | .9735 29433  | .2326 49186  | .0267 06211  |
| .2307  | .2286 59034  | .9735 06572  | .2327 51857  | .0267 29481  |
| .2308  | .2287 56384  | .9734 83701  | .2328 54531  | .0267 52761  |
| .2309  | .2288 53731  | .9734 60821  | .2329 57208  | .0267 76052  |
| 0.2310 | 0.2289 51076 | 0.9734 37931 | 0.2330 59887 | 1.0267 99353 |
| .2311  | .2290 48418  | .9734 15031  | .2331 62568  | .0268 22664  |
| .2312  | .2291 45759  | .9733 92121  | .2332 65251  | .0268 45985  |
| .2313  | .2292 43097  | .9733 69202  | .2333 67937  | .0268 69317  |
| .2314  | .2293 40433  | .9733 46272  | .2334 70625  | .0268 92659  |
| 0.2315 | 0.2294 37766 | 0.9733 23333 | 0.2335 73316 | 1.0269 16011 |
| .2316  | .2295 35097  | .9733 00385  | .2336 76008  | .0269 39374  |
| .2317  | .2296 32426  | .9732 77426  | .2337 78703  | .0269 62746  |
| .2318  | .2297 29753  | .9732 54458  | .2338 81401  | .0269 86129  |
| .2319  | .2298 27077  | .9732 31481  | .2339 84101  | .0270 09523  |
| 0.2320 | 0.2299 24399 | 0.9732 08493 | 0.2340 86803 | 1.0270 32926 |
| .2321  | .2300 21719  | .9731 85496  | .2341 89507  | .0270 56340  |
| .2322  | .2301 19036  | .9731 62489  | .2342 92214  | .0270 79764  |
| .2323  | .2302 16351  | .9731 39472  | .2343 94923  | .0271 03198  |
| .2324  | .2303 13664  | .9731 16445  | .2344 97635  | .0271 26643  |
| 0.2325 | 0.2304 10975 | 0.9730 93409 | 0.2346 00349 | 1.0271 50098 |
| .2326  | .2305 08283  | .9730 70363  | .2347 03065  | .0271 73563  |
| .2327  | .2306 05589  | .9730 47307  | .2348 05783  | .0271 97038  |
| .2328  | .2307 02892  | .9730 24242  | .2349 08504  | .0272 20524  |
| .2329  | .2308 00193  | .9730 01167  | .2350 11227  | .0272 44020  |
| 0.2330 | 0.2308 97492 | 0.9729 78082 | 0.2351 13953 | 1.0272 67526 |
| .2331  | .2309 94789  | .9729 54987  | .2352 16681  | .0272 91043  |
| .2332  | .2310 92083  | .9729 31883  | .2353 19411  | .0273 14570  |
| .2333  | .2311 89375  | .9729 08769  | .2354 22144  | .0273 38107  |
| .2334  | .2312 86665  | .9728 85645  | .2355 24879  | .0273 61654  |
| 0.2335 | 0.2313 83953 | 0.9728 62512 | 0.2356 27616 | 1.0273 85212 |
| .2336  | .2314 81238  | .9728 39368  | .2357 30356  | .0274 08780  |
| .2337  | .2315 78520  | .9728 16215  | .2358 33098  | .0274 32358  |
| .2338  | .2316 75801  | .9727 93053  | .2359 35842  | .0274 55946  |
| .2339  | .2317 73079  | .9727 69880  | .2360 38589  | .0274 79545  |
| 0.2340 | 0.2318 70355 | 0.9727 46698 | 0.2361 41338 | 1.0275 03154 |
| .2341  | .2319 67628  | .9727 23506  | .2362 44090  | .0275 26773  |
| .2342  | .2320 64900  | .9727 00304  | .2363 46844  | .0275 50403  |
| .2343  | .2321 62168  | .9726 77093  | .2364 49600  | .0275 74043  |
| .2344  | .2322 59435  | .9726 53872  | .2365 52358  | .0275 97693  |
| 0.2345 | 0.2323 56699 | 0.9726 30641 | 0.2366 55119 | 1.0276 21353 |
| .2346  | .2324 53961  | .9726 07401  | .2367 57883  | .0276 45024  |
| .2347  | .2325 51221  | .9725 84150  | .2368 60648  | .0276 68705  |
| .2348  | .2326 48478  | .9725 60890  | .2369 63416  | .0276 92396  |
| .2349  | .2327 45733  | .9725 37621  | .2370 66187  | .0277 16097  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.2350 | 0.2328 42986 | 0.9725 14341 | 0.2371 68960 | 1.0277 39809 |
| .2351  | .2329 40236  | .9724 91052  | .2372 71735  | .0277 63531  |
| .2352  | .2330 37484  | .9724 67753  | .2373 74512  | .0277 87264  |
| .2353  | .2331 34729  | .9724 44445  | .2374 77292  | .0278 11006  |
| .2354  | .2332 31973  | .9724 21126  | .2375 80074  | .0278 34759  |
| 0.2355 | 0.2333 29214 | 0.9723 97798 | 0.2376 82859 | 1.0278 58522 |
| .2356  | .2334 26452  | .9723 74460  | .2377 85646  | .0278 82296  |
| .2357  | .2335 23688  | .9723 51113  | .2378 88436  | .0279 06079  |
| .2358  | .2336 20922  | .9723 27756  | .2379 91227  | .0279 29873  |
| .2359  | .2337 18154  | .9723 04389  | .2380 94022  | .0279 53678  |
| 0.2360 | 0.2338 15383 | 0.9722 81012 | 0.2381 96818 | 1.0279 77492 |
| .2361  | .2339 12610  | .9722 57626  | .2382 99617  | .0280 01317  |
| .2362  | .2340 09835  | .9722 34230  | .2384 02418  | .0280 25152  |
| .2363  | .2341 07057  | .9722 10824  | .2385 05222  | .0280 48997  |
| .2364  | .2342 04277  | .9721 87408  | .2386 08028  | .0280 72853  |
| 0.2365 | 0.2343 01495 | 0.9721 63983 | 0.2387 10837 | 1.0280 96719 |
| .2366  | .2343 98710  | .9721 40548  | .2388 13648  | .0281 20595  |
| .2367  | .2344 95923  | .9721 17103  | .2389 16461  | .0281 44482  |
| .2368  | .2345 93133  | .9720 93649  | .2390 19276  | .0281 68378  |
| .2369  | .2346 90341  | .9720 70185  | .2391 22094  | .0281 92286  |
| 0.2370 | 0.2347 87547 | 0.9720 46711 | 0.2392 24915 | 1.0282 16203 |
| .2371  | .2348 84751  | .9720 23227  | .2393 27738  | .0282 40131  |
| .2372  | .2349 81952  | .9719 99734  | .2394 30563  | .0282 64068  |
| .2373  | .2350 79151  | .9719 76231  | .2395 33391  | .0282 88017  |
| .2374  | .2351 76347  | .9719 52718  | .2396 36221  | .0283 11975  |
| 0.2375 | 0.2352 73541 | 0.9719 29195 | 0.2397 39053 | 1.0283 35944 |
| .2376  | .2353 70733  | .9719 05663  | .2398 41888  | .0283 59923  |
| .2377  | .2354 67922  | .9718 82121  | .2399 44725  | .0283 83912  |
| .2378  | .2355 65109  | .9718 58570  | .2400 47564  | .0284 07912  |
| .2379  | .2356 62294  | .9718 35008  | .2401 50406  | .0284 31922  |
| 0.2380 | 0.2357 59476 | 0.9718 11437 | 0.2402 53251 | 1.0284 55942 |
| .2381  | .2358 56656  | .9717 87856  | .2403 56098  | .0284 79972  |
| .2382  | .2359 53834  | .9717 64266  | .2404 58947  | .0285 04013  |
| .2383  | .2360 51009  | .9717 40666  | .2405 61798  | .0285 28064  |
| .2384  | .2361 48182  | .9717 17056  | .2406 64652  | .0285 52126  |
| 0.2385 | 0.2362 45353 | 0.9716 93436 | 0.2407 67509 | 1.0285 76197 |
| .2386  | .2363 42521  | .9716 69807  | .2408 70368  | .0286 00279  |
| .2387  | .2364 39687  | .9716 46167  | .2409 73229  | .0286 24371  |
| .2388  | .2365 36850  | .9716 22519  | .2410 76093  | .0286 48474  |
| .2389  | .2366 34011  | .9715 98860  | .2411 78959  | .0286 72586  |
| 0.2390 | 0.2367 31170 | 0.9715 75192 | 0.2412 81827 | 1.0286 96709 |
| .2391  | .2368 28326  | .9715 51514  | .2413 84698  | .0287 20843  |
| .2392  | .2369 25480  | .9715 27826  | .2414 87571  | .0287 44986  |
| .2393  | .2370 22632  | .9715 04129  | .2415 90447  | .0287 69140  |
| .2394  | .2371 19781  | .9714 80422  | .2416 93325  | .0287 93305  |
| 0.2395 | 0.2372 16928 | 0.9714 56705 | 0.2417 96206 | 1.0288 17479 |
| .2396  | .2373 14072  | .9714 32978  | .2418 99089  | .0288 41664  |
| .2397  | .2374 11214  | .9714 09242  | .2420 01974  | .0288 65859  |
| .2398  | .2375 08354  | .9713 85496  | .2421 04862  | .0288 90064  |
| .2399  | .2376 05491  | .9713 61740  | .2422 07752  | .0289 14280  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.2400 | 0.2377 02626 | 0.9713 37975 | 0.2423 10645 | 1.0289 38506 |
| .2401  | .2377 99759  | .9713 14200  | .2424 13540  | .0289 62742  |
| .2402  | .2378 96889  | .9712 90415  | .2425 16437  | .0289 86988  |
| .2403  | .2379 94017  | .9712 66620  | .2426 19337  | .0290 11245  |
| .2404  | .2380 91143  | .9712 42816  | .2427 22239  | .0290 35512  |
| 0.2405 | 0.2381 88266 | 0.9712 19002 | 0.2428 25144 | 1.0290 59790 |
| .2406  | .2382 85386  | .9711 95178  | .2429 28051  | .0290 84077  |
| .2407  | .2383 82505  | .9711 71345  | .2430 30961  | .0291 08375  |
| .2408  | .2384 79621  | .9711 47502  | .2431 33873  | .0291 32683  |
| .2409  | .2385 76734  | .9711 23649  | .2432 36788  | .0291 57002  |
| 0.2410 | 0.2386 73845 | 0.9710 99787 | 0.2433 39704 | 1.0291 81331 |
| .2411  | .2387 70954  | .9710 75914  | .2434 42624  | .0292 05670  |
| .2412  | .2388 68061  | .9710 52032  | .2435 45546  | .0292 30019  |
| .2413  | .2389 65165  | .9710 28141  | .2436 48470  | .0292 54379  |
| .2414  | .2390 62266  | .9710 04239  | .2437 51396  | .0292 78749  |
| 0.2415 | 0.2391 59365 | 0.9709 80328 | 0.2438 54326 | 1.0293 03129 |
| .2416  | .2392 56462  | .9709 56407  | .2439 57257  | .0293 27520  |
| .2417  | .2393 53557  | .9709 32477  | .2440 60191  | .0293 51921  |
| .2418  | .2394 50649  | .9709 08537  | .2441 63127  | .0293 76332  |
| .2419  | .2395 47738  | .9708 84587  | .2442 66066  | .0294 00753  |
| 0.2420 | 0.2396 44826 | 0.9708 60627 | 0.2443 69008 | 1.0294 25185 |
| .2421  | .2397 41911  | .9708 36658  | .2444 71951  | .0294 49627  |
| .2422  | .2398 38993  | .9708 12679  | .2445 74898  | .0294 74080  |
| .2423  | .2399 36073  | .9707 88690  | .2446 77846  | .0294 98542  |
| .2424  | .2400 33151  | .9707 64692  | .2447 80797  | .0295 23015  |
| 0.2425 | 0.2401 30226 | 0.9707 40683 | 0.2448 83751 | 1.0295 47498 |
| .2426  | .2402 27299  | .9707 16666  | .2449 86707  | .0295 71992  |
| .2427  | .2403 24369  | .9706 92638  | .2450 89665  | .0295 96496  |
| .2428  | .2404 21437  | .9706 68601  | .2451 92626  | .0296 21010  |
| .2429  | .2405 18503  | .9706 44554  | .2452 95589  | .0296 45534  |
| 0.2430 | 0.2406 15566 | 0.9706 20497 | 0.2453 98555 | 1.0296 70069 |
| .2431  | .2407 12627  | .9705 96431  | .2455 01523  | .0296 94614  |
| .2432  | .2408 09686  | .9705 72354  | .2456 04494  | .0297 19169  |
| .2433  | .2409 06742  | .9705 48269  | .2457 07467  | .0297 43735  |
| .2434  | .2410 03795  | .9705 24173  | .2458 10443  | .0297 68311  |
| 0.2435 | 0.2411 00846 | 0.9705 00068 | 0.2459 13421 | 1.0297 92897 |
| .2436  | .2411 97895  | .9704 75953  | .2460 16401  | .0298 17493  |
| .2437  | .2412 94942  | .9704 51828  | .2461 19384  | .0298 42100  |
| .2438  | .2413 91986  | .9704 27694  | .2462 22370  | .0298 66717  |
| .2439  | .2414 89027  | .9704 03550  | .2463 25358  | .0298 91345  |
| 0.2440 | 0.2415 86066 | 0.9703 79396 | 0.2464 28348 | 1.0299 15982 |
| .2441  | .2416 83103  | .9703 55233  | .2465 31341  | .0299 40630  |
| .2442  | .2417 80137  | .9703 31060  | .2466 34336  | .0299 65289  |
| .2443  | .2418 77169  | .9703 06877  | .2467 37334  | .0299 89957  |
| .2444  | .2419 74199  | .9702 82684  | .2468 40334  | .0300 14636  |
| 0.2445 | 0.2420 71226 | 0.9702 58482 | 0.2469 43337 | 1.0300 39325 |
| .2446  | .2421 68250  | .9702 34270  | .2470 46342  | .0300 64025  |
| .2447  | .2422 65273  | .9702 10048  | .2471 49350  | .0300 88735  |
| .2448  | .2423 62292  | .9701 85817  | .2472 52360  | .0301 13455  |
| .2449  | .2424 59310  | .9701 61576  | .2473 55372  | .0301 38185  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.2450 | 0.2425 56325 | 0.9701 37325 | 0.2474 58387 | 1.0301 62928 |
| .2451  | .2426 53337  | .9701 13064  | .2475 61405  | .0301 87677  |
| .2452  | .2427 50347  | .9700 88794  | .2476 64425  | .0302 12438  |
| .2453  | .2428 47355  | .9700 64514  | .2477 67447  | .0302 37210  |
| .2454  | .2429 44360  | .9700 40225  | .2478 70472  | .0302 61991  |
| 0.2455 | 0.2430 41363 | 0.9700 15926 | 0.2479 73500 | 1.0302 86784 |
| .2456  | .2431 38363  | .9699 91617  | .2480 76530  | .0303 11586  |
| .2457  | .2432 35361  | .9699 67298  | .2481 79562  | .0303 36390  |
| .2458  | .2433 32357  | .9699 42969  | .2482 82597  | .0303 61222  |
| .2459  | .2434 29350  | .9699 18631  | .2483 85634  | .0303 86056  |
| 0.2460 | 0.2435 26341 | 0.9698 94284 | 0.2484 88674 | 1.0304 10899 |
| .2461  | .2436 23329  | .9698 69926  | .2485 91717  | .0304 35753  |
| .2462  | .2437 20315  | .9698 45559  | .2486 94761  | .0304 60618  |
| .2463  | .2438 17298  | .9698 21182  | .2487 97809  | .0304 85492  |
| .2464  | .2439 14279  | .9697 96795  | .2489 00859  | .0305 10377  |
| 0.2465 | 0.2440 11257 | 0.9697 72399 | 0.2490 03911 | 1.0305 35272 |
| .2466  | .2441 08233  | .9697 47993  | .2491 06966  | .0305 60178  |
| .2467  | .2442 05207  | .9697 23578  | .2492 10023  | .0305 85094  |
| .2468  | .2443 02178  | .9696 99152  | .2493 13083  | .0306 10020  |
| .2469  | .2443 99147  | .9696 74717  | .2494 16145  | .0306 34956  |
| 0.2470 | 0.2444 96113 | 0.9696 50272 | 0.2495 19210 | 1.0306 59903 |
| .2471  | .2445 93077  | .9696 25818  | .2496 22277  | .0306 84860  |
| .2472  | .2446 90038  | .9696 01354  | .2497 25347  | .0307 09828  |
| .2473  | .2447 86997  | .9695 76880  | .2498 28419  | .0307 34805  |
| .2474  | .2448 83954  | .9695 52396  | .2499 31494  | .0307 59793  |
| 0.2475 | 0.2449 80908 | 0.9695 27903 | 0.2500 34571 | 1.0307 84792 |
| .2476  | .2450 77859  | .9695 03400  | .2501 37651  | .0308 09800  |
| .2477  | .2451 74808  | .9694 78888  | .2502 40733  | .0308 34819  |
| .2478  | .2452 71755  | .9694 54365  | .2503 43817  | .0308 59848  |
| .2479  | .2453 68699  | .9694 29833  | .2504 46905  | .0308 84888  |
| 0.2480 | 0.2454 65641 | 0.9694 05291 | 0.2505 49994 | 1.0309 09938 |
| .2481  | .2455 62580  | .9693 80740  | .2506 53087  | .0309 34998  |
| .2482  | .2456 59517  | .9693 56179  | .2507 56181  | .0309 60068  |
| .2483  | .2457 56451  | .9693 31608  | .2508 59279  | .0309 85149  |
| .2484  | .2458 53383  | .9693 07028  | .2509 62378  | .0310 10240  |
| 0.2485 | 0.2459 50313 | 0.9692 82437 | 0.2510 65461 | 1.0310 35342 |
| .2486  | .2460 47240  | .9692 57838  | .2511 68586  | .0310 60453  |
| .2487  | .2461 44164  | .9692 33228  | .2512 71693  | .0310 85575  |
| .2488  | .2462 41086  | .9692 08609  | .2513 74803  | .0311 10708  |
| .2489  | .2463 38006  | .9691 83980  | .2514 77915  | .0311 35850  |
| 0.2490 | 0.2464 34923 | 0.9691 59341 | 0.2515 81030 | 1.0311 61003 |
| .2491  | .2465 31838  | .9691 34693  | .2516 84147  | .0311 86166  |
| .2492  | .2466 28750  | .9691 10035  | .2517 87267  | .0312 11340  |
| .2493  | .2467 25660  | .9690 85367  | .2518 90389  | .0312 36524  |
| .2494  | .2468 22567  | .9690 60690  | .2519 93514  | .0312 61718  |
| 0.2495 | 0.2469 19472 | 0.9690 36003 | 0.2520 96642 | 1.0312 86923 |
| .2496  | .2470 16375  | .9690 11306  | .2521 99772  | .0313 12137  |
| .2497  | .2471 13274  | .9689 86599  | .2523 02904  | .0313 37363  |
| .2498  | .2472 10172  | .9689 61883  | .2524 06039  | .0313 62598  |
| .2499  | .2473 07067  | .9689 37157  | .2525 09177  | .0313 87844  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.2500 | 0.2474 03959 | 0.9689 12422 | 0.2526 12317 | 1.0314 13100 |
| .2501  | .2475 00849  | .9688 87676  | .2527 15459  | .0314 38366  |
| .2502  | .2475 97737  | .9688 62922  | .2528 18604  | .0314 63643  |
| .2503  | .2476 94622  | .9688 38157  | .2529 21752  | .0314 88930  |
| .2504  | .2477 91504  | .9688 13383  | .2530 24902  | .0315 14227  |
| 0.2505 | 0.2478 88385 | 0.9687 88599 | 0.2531 28055 | 1.0315 39535 |
| .2506  | .2479 85262  | .9687 63805  | .2532 31210  | .0315 64853  |
| .2507  | .2480 82137  | .9687 39002  | .2533 34368  | .0315 90181  |
| .2508  | .2481 79010  | .9687 14189  | .2534 37528  | .0316 15520  |
| .2509  | .2482 75880  | .9686 89366  | .2535 40691  | .0316 40869  |
| 0.2510 | 0.2483 72748 | 0.9686 64533 | 0.2536 43856 | 1.0316 66228 |
| .2511  | .2484 69613  | .9686 39691  | .2537 47024  | .0316 91597  |
| .2512  | .2485 66476  | .9686 14839  | .2538 50195  | .0317 16977  |
| .2513  | .2486 63336  | .9685 89978  | .2539 53368  | .0317 42368  |
| .2514  | .2487 60194  | .9685 65107  | .2540 56543  | .0317 67768  |
| 0.2515 | 0.2488 57049 | 0.9685 40226 | 0.2541 59721 | 1.0317 93179 |
| .2516  | .2489 53902  | .9685 15335  | .2542 62902  | .0318 18600  |
| .2517  | .2490 50752  | .9684 90435  | .2543 66085  | .0318 44031  |
| .2518  | .2491 47600  | .9684 65525  | .2544 69271  | .0318 69473  |
| .2519  | .2492 44445  | .9684 40606  | .2545 72459  | .0318 94925  |
| 0.2520 | 0.2493 41288 | 0.9684 15676 | 0.2546 75650 | 1.0319 20388 |
| .2521  | .2494 38128  | .9683 90737  | .2547 78843  | .0319 45860  |
| .2522  | .2495 34966  | .9683 65789  | .2548 82039  | .0319 71343  |
| .2523  | .2496 31801  | .9683 40830  | .2549 85237  | .0319 96837  |
| .2524  | .2497 28634  | .9683 15862  | .2550 88438  | .0320 22340  |
| 0.2525 | 0.2498 25465 | 0.9682 90885 | 0.2551 91642 | 1.0320 47854 |
| .2526  | .2499 22292  | .9682 65897  | .2552 94848  | .0320 73379  |
| .2527  | .2500 19118  | .9682 40900  | .2553 98056  | .0320 98913  |
| .2528  | .2501 15941  | .9682 15893  | .2555 01268  | .0321 24458  |
| .2529  | .2502 12761  | .9681 90877  | .2556 04481  | .0321 50014  |
| 0.2530 | 0.2503 09579 | 0.9681 65851 | 0.2557 07698 | 1.0321 75579 |
| .2531  | .2504 06394  | .9681 40815  | .2558 10916  | .0322 01155  |
| .2532  | .2505 03207  | .9681 15770  | .2559 14138  | .0322 26742  |
| .2533  | .2506 00017  | .9680 90714  | .2560 17362  | .0322 52338  |
| .2534  | .2506 96825  | .9680 65650  | .2561 20588  | .0322 77945  |
| 0.2535 | 0.2507 93630 | 0.9680 40575 | 0.2562 23817 | 1.0323 03562 |
| .2536  | .2508 90435  | .9680 15491  | .2563 27049  | .0323 29190  |
| .2537  | .2509 87234  | .9679 90397  | .2564 30283  | .0323 54828  |
| .2538  | .2510 84031  | .9679 65293  | .2565 33520  | .0323 80476  |
| .2539  | .2511 80827  | .9679 40180  | .2566 36759  | .0324 06134  |
| 0.2540 | 0.2512 77619 | 0.9679 15057 | 0.2567 40001 | 1.0324 31803 |
| .2541  | .2513 74410  | .9678 89925  | .2568 43246  | .0324 57482  |
| .2542  | .2514 71197  | .9678 64782  | .2569 46493  | .0324 83172  |
| .2543  | .2515 67983  | .9678 39630  | .2570 49742  | .0325 08872  |
| .2544  | .2516 64765  | .9678 14469  | .2571 52994  | .0325 34582  |
| 0.2545 | 0.2517 61545 | 0.9677 89297 | 0.2572 56249 | 1.0325 60302 |
| .2546  | .2518 58323  | .9677 64116  | .2573 59506  | .0325 86033  |
| .2547  | .2519 55098  | .9677 38926  | .2574 62766  | .0326 11774  |
| .2548  | .2520 51871  | .9677 13725  | .2575 66029  | .0326 37526  |
| .2549  | .2521 48641  | .9676 88515  | .2576 69294  | .0326 63287  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.2550 | 0.2522 45409 | 0.9676 63296 | 0.2577 72561 | 1.0326 89059 |
| .2551  | .2523 42174  | .9676 38066  | .2578 75832  | .0327 14842  |
| .2552  | .2524 38936  | .9676 12827  | .2579 79104  | .0327 40635  |
| .2553  | .2525 35696  | .9675 87579  | .2580 82380  | .0327 66438  |
| .2554  | .2526 32454  | .9675 62320  | .2581 85658  | .0327 92251  |
| 0.2555 | 0.2527 29209 | 0.9675 37052 | 0.2582 88938 | 1.0328 18075 |
| .2556  | .2528 25961  | .9675 11774  | .2583 92221  | .0328 43909  |
| .2557  | .2529 22711  | .9674 86487  | .2584 95507  | .0328 69753  |
| .2558  | .2530 19458  | .9674 61190  | .2585 98795  | .0328 95608  |
| .2559  | .2531 16203  | .9674 35883  | .2587 02086  | .0329 21473  |
| 0.2560 | 0.2532 12946 | 0.9674 10566 | 0.2588 05380 | 1.0329 47348 |
| .2561  | .2533 09685  | .9673 85240  | .2589 08676  | .0329 73234  |
| .2562  | .2534 06423  | .9673 59905  | .2590 11974  | .0329 99130  |
| .2563  | .2535 03157  | .9673 34559  | .2591 15275  | .0330 25036  |
| .2564  | .2535 99890  | .9673 09204  | .2592 18579  | .0330 50953  |
| 0.2565 | 0.2536 96619 | 0.9672 83839 | 0.2593 21886 | 1.0330 76880 |
| .2566  | .2537 93346  | .9672 58465  | .2594 25195  | .0331 02818  |
| .2567  | .2538 90071  | .9672 33080  | .2595 28506  | .0331 28765  |
| .2568  | .2539 86793  | .9672 07687  | .2596 31820  | .0331 54723  |
| .2569  | .2540 83512  | .9671 82283  | .2597 35137  | .0331 80692  |
| 0.2570 | 0.2541 80229 | 0.9671 56870 | 0.2598 38456 | 1.0332 06670 |
| .2571  | .2542 76944  | .9671 31447  | .2599 41778  | .0332 32659  |
| .2572  | .2543 73656  | .9671 06014  | .2600 45103  | .0332 58659  |
| .2573  | .2544 70365  | .9670 80572  | .2601 48430  | .0332 84668  |
| .2574  | .2545 67072  | .9670 55120  | .2602 51760  | .0333 10688  |
| 0.2575 | 0.2546 63776 | 0.9670 29659 | 0.2603 55092 | 1.0333 36719 |
| .2576  | .2547 60478  | .9670 04188  | .2604 58427  | .0333 62759  |
| .2577  | .2548 57177  | .9669 78707  | .2605 61765  | .0333 88810  |
| .2578  | .2549 53874  | .9669 53216  | .2606 65105  | .0334 14872  |
| .2579  | .2550 50568  | .9669 27716  | .2607 68448  | .0334 40943  |
| 0.2580 | 0.2551 47259 | 0.9669 02206 | 0.2608 71793 | 1.0334 67025 |
| .2581  | .2552 43948  | .9668 76687  | .2609 75141  | .0334 93118  |
| .2582  | .2553 40634  | .9668 51157  | .2610 78492  | .0335 19220  |
| .2583  | .2554 37318  | .9668 25618  | .2611 81845  | .0335 45333  |
| .2584  | .2555 34000  | .9668 00070  | .2612 85201  | .0335 71467  |
| 0.2585 | 0.2556 30678 | 0.9667 74512 | 0.2613 88559 | 1.0335 97590 |
| .2586  | .2557 27354  | .9667 48944  | .2614 91920  | .0336 23734  |
| .2587  | .2558 24028  | .9667 23366  | .2615 95284  | .0336 49889  |
| .2588  | .2559 20699  | .9666 97779  | .2616 98650  | .0336 76054  |
| .2589  | .2560 17368  | .9666 72182  | .2618 02019  | .0337 02229  |
| 0.2590 | 0.2561 14034 | 0.9666 46575 | 0.2619 05391 | 1.0337 28414 |
| .2591  | .2562 10697  | .9666 20959  | .2620 08765  | .0337 54610  |
| .2592  | .2563 07358  | .9665 95333  | .2621 12142  | .0337 80816  |
| .2593  | .2564 04016  | .9665 69698  | .2622 15521  | .0338 07032  |
| .2594  | .2565 00672  | .9665 44053  | .2623 18903  | .0338 33259  |
| 0.2595 | 0.2565 97325 | 0.9665 18598 | 0.2624 22288 | 1.0338 59496 |
| .2596  | .2566 93975  | .9664 92733  | .2625 25675  | .0338 85743  |
| .2597  | .2567 90623  | .9664 67059  | .2626 29065  | .0339 12001  |
| .2598  | .2568 87269  | .9664 41375  | .2627 32458  | .0339 38269  |
| .2599  | .2569 83912  | .9664 15681  | .2628 35853  | .0339 64547  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.2600 | 0.2570 80552 | 0.9663 89978 | 0.2629 39250 | 1.0339 90836 |
| .2601  | .2571 77190  | .9663 64265  | .2630 42651  | .0340 17135  |
| .2602  | .2572 73825  | .9663 38543  | .2631 46054  | .0340 43445  |
| .2603  | .2573 70457  | .9663 12810  | .2632 49460  | .0340 69765  |
| .2604  | .2574 67087  | .9662 87069  | .2633 52868  | .0340 96095  |
| 0.2605 | 0.2575 63715 | 0.9662 61317 | 0.2634 56279 | 1.0341 22435 |
| .2606  | .2576 60340  | .9662 35556  | .2635 59692  | .0341 48786  |
| .2607  | .2577 56962  | .9662 09785  | .2636 63108  | .0341 75147  |
| .2608  | .2578 53582  | .9661 84004  | .2637 66527  | .0342 01519  |
| .2609  | .2579 50199  | .9661 58214  | .2638 69949  | .0342 27900  |
| 0.2610 | 0.2580 46813 | 0.9661 32414 | 0.2639 73373 | 1.0342 54293 |
| .2611  | .2581 43425  | .9661 06605  | .2640 76800  | .0342 80695  |
| .2612  | .2582 40034  | .9660 80786  | .2641 80229  | .0343 07108  |
| .2613  | .2583 36641  | .9660 54957  | .2642 83661  | .0343 33531  |
| .2614  | .2584 33245  | .9660 29118  | .2643 87096  | .0343 59965  |
| 0.2615 | 0.2585 29847 | 0.9660 03270 | 0.2644 90533 | 1.0343 86408 |
| .2616  | .2586 26446  | .9659 77412  | .2645 93973  | .0344 12863  |
| .2617  | .2587 23043  | .9659 51545  | .2646 97416  | .0344 39327  |
| .2618  | .2588 19636  | .9659 25668  | .2648 00861  | .0344 65802  |
| .2619  | .2589 16228  | .9658 99781  | .2649 04309  | .0344 92287  |
| 0.2620 | 0.2590 12816 | 0.9658 73885 | 0.2650 07759 | 1.0345 18783 |
| .2621  | .2591 09402  | .9658 47978  | .2651 11213  | .0345 45289  |
| .2622  | .2592 05986  | .9658 22063  | .2652 14668  | .0345 71805  |
| .2623  | .2593 02567  | .9657 96137  | .2653 18127  | .0345 98332  |
| .2624  | .2593 99145  | .9657 70202  | .2654 21588  | .0346 24869  |
| 0.2625 | 0.2594 95721 | 0.9657 44257 | 0.2655 25052 | 1.0346 51416 |
| .2626  | .2595 92294  | .9657 18303  | .2656 28518  | .0346 77974  |
| .2627  | .2596 88865  | .9656 92339  | .2657 31987  | .0347 04542  |
| .2628  | .2597 85433  | .9656 66365  | .2658 35459  | .0347 31120  |
| .2629  | .2598 81998  | .9656 40382  | .2659 38934  | .0347 57709  |
| 0.2630 | 0.2599 78561 | 0.9656 14389 | 0.2660 42411 | 1.0347 84308 |
| .2631  | .2600 75121  | .9655 88386  | .2661 45891  | .0348 10918  |
| .2632  | .2601 71678  | .9655 62374  | .2662 49373  | .0348 37537  |
| .2633  | .2602 68233  | .9655 36352  | .2663 52858  | .0348 64167  |
| .2634  | .2603 64786  | .9655 10320  | .2664 56346  | .0348 90808  |
| 0.2635 | 0.2604 61335 | 0.9654 84279 | 0.2665 59836 | 1.0349 17459 |
| .2636  | .2605 57882  | .9654 58228  | .2666 63329  | .0349 44120  |
| .2637  | .2606 54427  | .9654 32167  | .2667 66825  | .0349 70791  |
| .2638  | .2607 50969  | .9654 06097  | .2668 70323  | .0349 97473  |
| .2639  | .2608 47508  | .9653 80017  | .2669 73825  | .0350 24165  |
| 0.2640 | 0.2609 44045 | 0.9653 53928 | 0.2670 77328 | 1.0350 50868 |
| .2641  | .2610 40579  | .9653 27828  | .2671 80835  | .0350 77581  |
| .2642  | .2611 37110  | .9653 01719  | .2672 84344  | .0351 04304  |
| .2643  | .2612 33639  | .9652 75601  | .2673 87856  | .0351 31038  |
| .2644  | .2613 30166  | .9652 49473  | .2674 91370  | .0351 57782  |
| 0.2645 | 0.2614 26689 | 0.9652 23335 | 0.2675 94887 | 1.0351 84536 |
| .2646  | .2615 23210  | .9651 97187  | .2676 98407  | .0352 11301  |
| .2647  | .2616 19729  | .9651 71030  | .2678 01929  | .0352 38076  |
| .2648  | .2617 16244  | .9651 44863  | .2679 05455  | .0352 64861  |
| .2649  | .2618 12758  | .9651 18687  | .2680 08982  | .0352 91657  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.2650 | 0.2619 09268 | 0.9650 92501 | 0.2681 12513 | 1.0353 18463 |
| .2651  | .2620 05776  | .9650 66305  | .2682 14046  | .0353 45279  |
| .2652  | .2621 02281  | .9650 40100  | .2683 19582  | .0353 72106  |
| .2653  | .2621 98784  | .9650 13885  | .2684 23121  | .0353 98943  |
| .2654  | .2622 95284  | .9649 87660  | .2685 26662  | .0354 25791  |
| 0.2655 | 0.2623 91782 | 0.9649 61426 | 0.2686 30206 | 1.0354 52649 |
| .2656  | .2624 88276  | .9649 35182  | .2687 33752  | .0354 79517  |
| .2657  | .2625 84769  | .9649 08928  | .2688 37302  | .0355 06395  |
| .2658  | .2626 81258  | .9648 82665  | .2689 40854  | .0355 33284  |
| .2659  | .2627 77745  | .9648 56392  | .2690 44408  | .0355 60183  |
| 0.2660 | 0.2628 74230 | 0.9648 30109 | 0.2691 47966 | 1.0355 87093 |
| .2661  | .2629 70711  | .9648 03817  | .2692 51526  | .0355 14013  |
| .2662  | .2630 67190  | .9647 77515  | .2693 55088  | .0356 40943  |
| .2663  | .2631 63667  | .9647 51203  | .2694 58654  | .0356 67884  |
| .2664  | .2632 60141  | .9647 24882  | .2695 62222  | .0356 94835  |
| 0.2665 | 0.2633 56612 | 0.9646 98551 | 0.2696 65793 | 1.0357 21797 |
| .2666  | .2634 53080  | .9646 72211  | .2697 69366  | .0357 48768  |
| .2667  | .2635 49546  | .9646 45861  | .2698 72943  | .0357 75750  |
| .2668  | .2636 46009  | .9646 19501  | .2699 76521  | .0358 02743  |
| .2669  | .2637 42470  | .9645 93132  | .2700 80103  | .0358 29746  |
| 0.2670 | 0.2638 38928 | 0.9645 66753 | 0.2701 83687 | 1.0358 56759 |
| .2671  | .2639 35383  | .9645 40364  | .2702 87274  | .0358 83782  |
| .2672  | .2640 31836  | .9645 13965  | .2703 90864  | .0359 10816  |
| .2673  | .2641 28286  | .9644 87557  | .2704 94457  | .0359 37861  |
| .2674  | .2642 24734  | .9644 61140  | .2705 98052  | .0359 64915  |
| 0.2675 | 0.2643 21178 | 0.9644 34712 | 0.2707 01650 | 1.0359 91980 |
| .2676  | .2644 17621  | .9644 08276  | .2708 05250  | .0360 19056  |
| .2677  | .2645 14060  | .9643 81829  | .2709 08853  | .0360 46141  |
| .2678  | .2646 10497  | .9643 55373  | .2710 12459  | .0360 73237  |
| .2679  | .2647 06931  | .9643 28907  | .2711 16068  | .0361 00344  |
| 0.2680 | 0.2648 03363 | 0.9643 02431 | 0.2712 19679 | 1.0361 27461 |
| .2681  | .2648 99792  | .9642 75946  | .2713 23294  | .0361 54588  |
| .2682  | .2649 96218  | .9642 49451  | .2714 26910  | .0361 81725  |
| .2683  | .2650 92642  | .9642 22947  | .2715 30530  | .0362 08873  |
| .2684  | .2651 89062  | .9641 96433  | .2716 34152  | .0362 36031  |
| 0.2685 | 0.2652 85481 | 0.9641 69909 | 0.2717 37777 | 1.0362 63200 |
| .2686  | .2653 81896  | .9641 43376  | .2718 41405  | .0362 90379  |
| .2687  | .2654 78309  | .9641 16833  | .2719 45035  | .0363 17568  |
| .2688  | .2655 74720  | .9640 90280  | .2720 48668  | .0363 44768  |
| .2689  | .2656 71128  | .9640 63718  | .2721 52304  | .0363 71978  |
| 0.2690 | 0.2657 67533 | 0.9640 37146 | 0.2722 55943 | 1.0363 99198 |
| .2691  | .2658 63935  | .9640 10564  | .2723 59584  | .0364 26429  |
| .2692  | .2659 60335  | .9639 83973  | .2724 63228  | .0364 53670  |
| .2693  | .2660 56732  | .9639 57372  | .2725 66875  | .0364 80922  |
| .2694  | .2661 53126  | .9639 30762  | .2726 70524  | .0365 08184  |
| 0.2695 | 0.2662 49518 | 0.9639 04142 | 0.2727 74176 | 1.0365 35456 |
| .2696  | .2663 45907  | .9638 77512  | .2728 77831  | .0365 62738  |
| .2697  | .2664 42293  | .9638 50872  | .2729 81489  | .0365 90031  |
| .2698  | .2665 38677  | .9638 24223  | .2730 85149  | .0366 17335  |
| .2699  | .2666 35058  | .9637 97565  | .2731 88812  | .0366 44648  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.2700 | 0.2667 31437 | 0.9637 70896 | 0.2732 92478 | 1.0366 71973 |
| .2701  | .2668 27812  | .9637 44218  | .2733 96147  | .0366 99307  |
| .2702  | .2669 24186  | .9637 17531  | .2734 99818  | .0367 26652  |
| .2703  | .2670 20556  | .9636 90834  | .2736 03492  | .0367 54007  |
| .2704  | .2671 16924  | .9636 64127  | .2737 07169  | .0367 81372  |
| 0.2705 | 0.2672 13289 | 0.9636 37410 | 0.2738 10848 | 1.0368 08748 |
| .2706  | .2673 09651  | .9636 10684  | .2739 14531  | .0368 36135  |
| .2707  | .2674 06011  | .9635 83948  | .2740 18216  | .0368 63531  |
| .2708  | .2675 02368  | .9635 57203  | .2741 21903  | .0368 90938  |
| .2709  | .2675 98722  | .9635 30448  | .2742 25594  | .0369 18356  |
| 0.2710 | 0.2676 95074 | 0.9635 03683 | 0.2743 29287 | 1.0369 45783 |
| .2711  | .2677 91423  | .9634 76909  | .2744 32983  | .0369 73222  |
| .2712  | .2678 87769  | .9634 50125  | .2745 36682  | .0370 00670  |
| .2713  | .2679 84113  | .9634 23331  | .2746 40383  | .0370 28129  |
| .2714  | .2680 80454  | .9633 96528  | .2747 44087  | .0370 55598  |
| 0.2715 | 0.2681 76792 | 0.9633 69715 | 0.2748 47794 | 1.0370 83078 |
| .2716  | .2682 73128  | .9633 42893  | .2749 51504  | .0371 10568  |
| .2717  | .2683 69461  | .9633 16060  | .2750 55216  | .0371 38068  |
| .2718  | .2684 65791  | .9632 89219  | .2751 58931  | .0371 65579  |
| .2719  | .2685 62119  | .9632 62367  | .2752 62649  | .0371 93100  |
| 0.2720 | 0.2686 58444 | 0.9632 35506 | 0.2753 66370 | 1.0372 20631 |
| .2721  | .2687 54766  | .9632 08636  | .2754 70094  | .0372 48173  |
| .2722  | .2688 51085  | .9631 81755  | .2755 73820  | .0372 75725  |
| .2723  | .2689 47402  | .9631 54865  | .2756 77549  | .0373 03288  |
| .2724  | .2690 43716  | .9631 27966  | .2757 81280  | .0373 30861  |
| 0.2725 | 0.2691 40028 | 0.9631 01057 | 0.2758 85015 | 1.0373 58444 |
| .2726  | .2692 36337  | .9630 74138  | .2759 88752  | .0373 86038  |
| .2727  | .2693 32643  | .9630 47209  | .2760 92492  | .0374 13642  |
| .2728  | .2694 28946  | .9630 20271  | .2761 96235  | .0374 41256  |
| .2729  | .2695 25247  | .9629 93324  | .2762 99980  | .0374 68881  |
| 0.2730 | 0.2696 21545 | 0.9629 66366 | 0.2764 03729 | 1.0374 96516 |
| .2731  | .2697 17840  | .9629 39399  | .2765 07480  | .0375 24162  |
| .2732  | .2698 14133  | .9629 12423  | .2766 11233  | .0375 51818  |
| .2733  | .2699 10423  | .9628 85436  | .2767 14990  | .0375 79484  |
| .2734  | .2700 06710  | .9628 58441  | .2768 18749  | .0376 07161  |
| 0.2735 | 0.2701 02994 | 0.9628 31435 | 0.2769 22511 | 1.0376 34848 |
| .2736  | .2701 99276  | .9628 04420  | .2770 26276  | .0376 62545  |
| .2737  | .2702 95555  | .9627 77395  | .2771 30044  | .0376 90253  |
| .2738  | .2703 91831  | .9627 50361  | .2772 33814  | .0377 17971  |
| .2739  | .2704 88105  | .9627 23317  | .2773 37588  | .0377 45700  |
| 0.2740 | 0.2705 84376 | 0.9626 96263 | 0.2774 41363 | 1.0377 73439 |
| .2741  | .2706 80644  | .9626 69200  | .2775 45142  | .0378 01188  |
| .2742  | .2707 76910  | .9626 42127  | .2776 48924  | .0378 28948  |
| .2743  | .2708 73173  | .9626 15045  | .2777 52708  | .0378 56718  |
| .2744  | .2709 69433  | .9625 87953  | .2778 56495  | .0378 84498  |
| 0.2745 | 0.2710 65690 | 0.9625 60851 | 0.2779 60285 | 1.0379 12289 |
| .2746  | .2711 61945  | .9625 33739  | .2780 64078  | .0379 40090  |
| .2747  | .2712 58197  | .9625 06618  | .2781 67873  | .0379 67902  |
| .2748  | .2713 54446  | .9624 79488  | .2782 71671  | .0379 95724  |
| .2749  | .2714 50693  | .9624 52348  | .2783 75472  | .0380 23556  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 0.2750 | 0.2715 46937 | 0.9624 25198 | 0.2784 79276 | 1.0380 51399 |
| .2751  | .2716 43178  | .9623 98038  | .2785 83082  | .0380 79282  |
| .2752  | .2717 39417  | .9623 70869  | .2786 86892  | .0381 07116  |
| .2753  | .2718 35652  | .9623 43690  | .2787 90704  | .0381 34990  |
| .2754  | .2719 31885  | .9623 16502  | .2788 94519  | .0381 62874  |
| 0.2755 | 0.2720 28116 | 0.9622 89304 | 0.2789 98336 | 1.0381 90768 |
| .2756  | .2721 24343  | .9622 62096  | .2791 02157  | .0382 18673  |
| .2757  | .2722 20568  | .9622 34879  | .2792 05980  | .0382 46589  |
| .2758  | .2723 16790  | .9622 07652  | .2793 09806  | .0382 74515  |
| .2759  | .2724 13010  | .9621 80416  | .2794 13635  | .0383 02451  |
| 0.2760 | 0.2725 09226 | 0.9621 53170 | 0.2795 17467 | 1.0383 30397 |
| .2761  | .2726 05440  | .9621 25914  | .2796 21301  | .0383 58354  |
| .2762  | .2727 01651  | .9620 98648  | .2797 25138  | .0383 86322  |
| .2763  | .2727 97860  | .9620 71373  | .2798 28978  | .0384 14299  |
| .2764  | .2728 94066  | .9620 44089  | .2799 32821  | .0384 42287  |
| 0.2765 | 0.2729 90269 | 0.9620 16795 | 0.2800 36667 | 1.0384 70286 |
| .2766  | .2730 86469  | .9619 89491  | .2801 40515  | .0384 98295  |
| .2767  | .2731 82667  | .9619 62177  | .2802 44366  | .0385 26314  |
| .2768  | .2732 78861  | .9619 34854  | .2803 48220  | .0385 54344  |
| .2769  | .2733 75054  | .9619 07522  | .2804 52077  | .0385 82384  |
| 0.2770 | 0.2734 71243 | 0.9618 80179 | 0.2805 55937 | 1.0386 10434 |
| .2771  | .2735 67430  | .9618 52827  | .2806 59799  | .0386 38495  |
| .2772  | .2736 63614  | .9618 25466  | .2807 63665  | .0386 66566  |
| .2773  | .2737 59795  | .9617 98095  | .2808 67533  | .0386 94648  |
| .2774  | .2738 55973  | .9617 70714  | .2809 71404  | .0387 22740  |
| 0.2775 | 0.2739 52149 | 0.9617 43323 | 0.2810 75277 | 1.0387 50842 |
| .2776  | .2740 48322  | .9617 15923  | .2811 79154  | .0387 78955  |
| .2777  | .2741 44492  | .9616 88514  | .2812 83033  | .0388 07078  |
| .2778  | .2742 40660  | .9616 61094  | .2813 86915  | .0388 35211  |
| .2779  | .2743 36824  | .9616 33666  | .2814 90800  | .0388 63355  |
| .2780  | 0.2744 32986 | 0.9616 06227 | 0.2815 94688 | 1.0388 91509 |
| .2781  | .2745 29146  | .9615 78779  | .2816 98578  | .0389 19674  |
| .2782  | .2746 25302  | .9615 51321  | .2818 02472  | .0389 47849  |
| .2783  | .2747 21456  | .9615 23854  | .2819 06368  | .0389 76035  |
| .2784  | .2748 17607  | .9614 96377  | .2820 10267  | .0390 04230  |
| 0.2785 | 0.2749 13755 | 0.9614 68890 | 0.2821 14169 | 1.0390 32437 |
| .2786  | .2750 09901  | .9614 41394  | .2822 18073  | .0390 60653  |
| .2787  | .2751 06043  | .9614 13888  | .2823 21981  | .0390 88880  |
| .2788  | .2752 02183  | .9613 86373  | .2824 25891  | .0391 17118  |
| .2789  | .2752 98321  | .9613 58848  | .2825 29804  | .0391 45365  |
| 0.2790 | 0.2753 94455 | 0.9613 31313 | 0.2826 33720 | 1.0391 73624 |
| .2791  | .2754 90587  | .9613 03769  | .2827 37639  | .0392 01892  |
| .2792  | .2755 86716  | .9612 76215  | .2828 41561  | .0392 30171  |
| .2793  | .2756 82842  | .9612 48652  | .2829 45485  | .0392 58460  |
| .2794  | .2757 78966  | .9612 21079  | .2830 49412  | .0392 86760  |
| 0.2795 | 0.2758 75086 | 0.9611 93496 | 0.2831 53342 | 1.0393 15070 |
| .2796  | .2759 71204  | .9611 65904  | .2832 57275  | .0393 43391  |
| .2797  | .2760 67320  | .9611 38302  | .2833 61211  | .0393 71722  |
| .2798  | .2761 63432  | .9611 10690  | .2834 65150  | .0394 00063  |
| .2799  | .2762 59542  | .9610 83069  | .2835 69091  | .0394 28415  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.2800 | 0.2763 55649 | 0.9610 55438 | 0.2836 73035 | 1.0394 56777 |
| .2801  | .2764 51753  | .9610 27798  | .2837 76983  | .0394 85149  |
| .2802  | .2765 47854  | .9610 00148  | .2838 80932  | .0395 13532  |
| .2803  | .2766 43953  | .9609 72488  | .2839 84885  | .0395 41926  |
| .2804  | .2767 40049  | .9609 44819  | .2840 88841  | .0395 70329  |
| 0.2805 | 0.2768 36142 | 0.9609 17140 | 0.2841 92799 | 1.0395 98743 |
| .2806  | .2769 32232  | .9608 89452  | .2842 96761  | .0396 27168  |
| .2807  | .2770 28320  | .9608 61754  | .2844 00725  | .0396 55603  |
| .2808  | .2771 24404  | .9608 34046  | .2845 04692  | .0396 84048  |
| .2809  | .2772 20486  | .9608 06329  | .2846 08662  | .0397 12504  |
| 0.2810 | 0.2773 16566 | 0.9607 78602 | 0.2847 12634 | 1.0397 40970 |
| .2811  | .2774 12642  | .9607 50866  | .2848 16610  | .0397 69446  |
| .2812  | .2775 08716  | .9607 23120  | .2849 20588  | .0397 97933  |
| .2813  | .2776 04787  | .9606 95364  | .2850 24569  | .0398 26430  |
| .2814  | .2777 00855  | .9606 67599  | .2851 28553  | .0398 54938  |
| 0.2815 | 0.2777 96920 | 0.9606 39824 | 0.2852 32540 | 1.0398 83456 |
| .2816  | .2778 92983  | .9606 12039  | .2853 36530  | .0399 11984  |
| .2817  | .2779 89043  | .9605 84245  | .2854 40523  | .0399 40523  |
| .2818  | .2780 85100  | .9605 56442  | .2855 44518  | .0399 69073  |
| .2819  | .2781 81154  | .9605 28628  | .2856 48517  | .0399 97632  |
| 0.2820 | 0.2782 77205 | 0.9605 00805 | 0.2857 52518 | 1.0400 26202 |
| .2821  | .2783 73254  | .9604 72973  | .2858 56522  | .0400 54783  |
| .2822  | .2784 69300  | .9604 45131  | .2859 60529  | .0400 83374  |
| .2823  | .2785 65343  | .9604 17279  | .2860 64538  | .0401 11975  |
| .2824  | .2786 61383  | .9603 89418  | .2861 68551  | .0401 40586  |
| 0.2825 | 0.2787 57421 | 0.9603 61547 | 0.2862 72567 | 1.0401 69209 |
| .2826  | .2788 53456  | .9603 33666  | .2863 76585  | .0401 97841  |
| .2827  | .2789 49488  | .9603 05776  | .2864 80606  | .0402 26484  |
| .2828  | .2790 45517  | .9602 77876  | .2865 84630  | .0402 55137  |
| .2829  | .2791 41543  | .9602 49967  | .2866 88657  | .0402 83801  |
| 0.2830 | 0.2792 37567 | 0.9602 22048 | 0.2867 92687 | 1.0403 12475 |
| .2831  | .2793 33588  | .9601 94119  | .2868 96720  | .0403 41159  |
| .2832  | .2794 29606  | .9601 66181  | .2870 00755  | .0403 69854  |
| .2833  | .2795 25621  | .9601 38233  | .2871 04794  | .0403 98559  |
| .2834  | .2796 21633  | .9601 10276  | .2872 08835  | .0404 27275  |
| 0.2835 | 0.2797 17643 | 0.9600 82309 | 0.2873 12879 | 1.0404 56001 |
| .2836  | .2798 13650  | .9600 54332  | .2874 16926  | .0404 84738  |
| .2837  | .2799 09654  | .9600 26346  | .2875 20976  | .0405 13485  |
| .2838  | .2800 05655  | .9599 98351  | .2876 25029  | .0405 42242  |
| .2839  | .2801 01654  | .9599 70345  | .2877 29084  | .0405 71010  |
| 0.2840 | 0.2801 97649 | 0.9599 42330 | 0.2878 33143 | 1.0405 99788 |
| .2841  | .2802 93642  | .9599 14306  | .2879 37204  | .0406 28576  |
| .2842  | .2803 89632  | .9598 86272  | .2880 41269  | .0406 57375  |
| .2843  | .2804 85619  | .9598 58228  | .2881 45336  | .0406 86185  |
| .2844  | .2805 81604  | .9598 30174  | .2882 49406  | .0407 15004  |
| 0.2845 | 0.2806 77585 | 0.9598 02111 | 0.2883 53479 | 1.0407 43834 |
| .2846  | .2807 73564  | .9597 74039  | .2884 57555  | .0407 72675  |
| .2847  | .2808 69540  | .9597 45957  | .2885 61633  | .0408 01526  |
| .2848  | .2809 65513  | .9597 17865  | .2886 65715  | .0408 30387  |
| .2849  | .2810 61484  | .9596 89764  | .2887 69800  | .0408 59259  |



| x      | sin x        | cos x        | sinh x       |
|--------|--------------|--------------|--------------|
| 0.2850 | 0.2811 57451 | 0.9596 61653 | 0.2888 73807 |
| .2851  | .2812 53416  | .9596 33532  | .2889 77977  |
| .2852  | .2813 49378  | .9596 05402  | .2890 82070  |
| .2853  | .2814 45337  | .9595 77262  | .2891 86166  |
| .2854  | .2815 41293  | .9595 49113  | .2892 90265  |
| 0.2855 | 0.2816 37247 | 0.9595 20954 | 0.2893 94367 |
| .2856  | .2817 33198  | .9594 92785  | .2894 98472  |
| .2857  | .2818 29146  | .9594 64607  | .2896 02579  |
| .2858  | .2819 25091  | .9594 36420  | .2897 06690  |
| .2859  | .2820 21033  | .9594 08222  | .2898 10803  |
| 0.2860 | 0.2821 16972 | 0.9593 80015 | 0.2899 14920 |
| .2861  | .2822 12909  | .9593 51799  | .2900 19039  |
| .2862  | .2823 08843  | .9593 23573  | .2901 23161  |
| .2863  | .2824 04774  | .9592 95357  | .2902 27286  |
| .2864  | .2825 00702  | .9592 67092  | .2903 31414  |
| 0.2865 | 0.2825 96627 | 0.9592 38837 | 0.2904 35545 |
| .2866  | .2826 92549  | .9592 10573  | .2905 39678  |
| .2867  | .2827 88469  | .9591 82299  | .2906 43815  |
| .2868  | .2828 84386  | .9591 54015  | .2907 47955  |
| .2869  | .2829 80300  | .9591 25722  | .2908 52097  |
| 0.2870 | 0.2830 76211 | 0.9590 97419 | 0.2909 56242 |
| .2871  | .2831 72119  | .9590 69106  | .2910 60391  |
| .2872  | .2832 68025  | .9590 40784  | .2911 64542  |
| .2873  | .2833 63927  | .9590 12453  | .2912 68696  |
| .2874  | .2834 59827  | .9589 84112  | .2913 72853  |
| 0.2875 | 0.2835 55724 | 0.9589 55761 | 0.2914 77013 |
| .2876  | .2836 51618  | .9589 27400  | .2915 81176  |
| .2877  | .2837 47510  | .9588 99030  | .2916 85341  |
| .2878  | .2838 43398  | .9588 70651  | .2917 89510  |
| .2879  | .2839 39284  | .9588 42262  | .2918 93681  |
| 0.2880 | 0.2840 35167 | 0.9588 13863 | 0.2919 97856 |
| .2881  | .2841 31047  | .9587 85455  | .2921 02033  |
| .2882  | .2842 26924  | .9587 57037  | .2922 06214  |
| .2883  | .2843 22798  | .9587 28609  | .2923 10397  |
| .2884  | .2844 18670  | .9587 00172  | .2924 14583  |
| 0.2885 | 0.2845 14538 | 0.9586 71726 | 0.2925 18772 |
| .2886  | .2846 10404  | .9586 43269  | .2926 22964  |
| .2887  | .2847 06267  | .9586 14804  | .2927 27159  |
| .2888  | .2848 02127  | .9585 86328  | .2928 31357  |
| .2889  | .2848 97984  | .9585 57843  | .2929 35558  |
| 0.2890 | 0.2849 93838 | 0.9585 29349 | 0.2930 39762 |
| .2891  | .2850 89690  | .9585 00844  | .2931 43968  |
| .2892  | .2851 85539  | .9584 72331  | .2932 48178  |
| .2893  | .2852 81384  | .9584 43807  | .2933 52390  |
| .2894  | .2853 77227  | .9584 15274  | .2934 56606  |
| 0.2895 | 0.2854 73067 | 0.9583 86732 | 0.2935 60824 |
| .2896  | .2855 68905  | .9583 58180  | .2936 65046  |
| .2897  | .2856 64739  | .9583 29618  | .2937 69270  |
| .2898  | .2857 60571  | .9583 01047  | .2938 73497  |
| .2899  | .2858 56399  | .9582 72466  | .2939 77727  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 0.2900 | 0.2859 52225 | 0.9582 43876 | 0.2940 81960 | 1.0423 45528 |
| .2901  | .2860 48048  | .9582 15275  | .2941 86196  | .0423 74941  |
| .2902  | .2861 43868  | .9581 36666  | .2942 90435  | .0424 04365  |
| .2903  | .2862 39685  | .9581 53047  | .2943 94677  | .0424 33799  |
| .2904  | .2863 35500  | .9581 29418  | .2944 98922  | .0424 63244  |
| 0.2905 | 0.2864 31311 | .9581 00780  | 0.2946 03170 | 1.0424 92699 |
| .2906  | .2865 27120  | .9580 72132  | .2947 07421  | .0425 22165  |
| .2907  | .2866 22926  | .9580 43474  | .2948 11674  | .0425 51641  |
| .2908  | .2867 18729  | .9580 14807  | .2949 15931  | .0425 81127  |
| .2909  | .2868 14529  | .9579 86130  | .2950 20190  | .0426 10624  |
| 0.2910 | 0.2869 10326 | 0.9579 57444 | 0.2951 24453 | 1.0426 40131 |
| .2911  | .2870 06120  | .9579 28748  | .2952 28718  | .0426 69649  |
| .2912  | .2871 01912  | .9579 00043  | .2953 32987  | .0426 99177  |
| .2913  | .2871 97700  | .9578 71328  | .2954 37258  | .0427 28715  |
| .2914  | .2872 93486  | .9578 42603  | .2955 41533  | .0427 58264  |
| 0.2915 | 0.2873 89269 | 0.9578 13869 | 0.2956 45810 | 1.0427 87824 |
| .2916  | .2874 85049  | .9577 85126  | .2957 50090  | .0428 17393  |
| .2917  | .2875 80826  | .9577 56372  | .2958 54373  | .0428 46974  |
| .2918  | .2876 76600  | .9577 27609  | .2959 58660  | .0428 76564  |
| .2919  | .2877 72371  | .9576 98837  | .2960 62949  | .0429 06165  |
| 0.2920 | 0.2878 68140 | 0.9576 70055 | 0.2961 67241 | 1.0429 35777 |
| .2921  | .2879 63905  | .9576 41263  | .2962 71536  | .0429 65399  |
| .2922  | .2880 59668  | .9576 12462  | .2963 75834  | .0429 95031  |
| .2923  | .2881 55428  | .9575 83651  | .2964 80135  | .0430 24674  |
| .2924  | .2882 51185  | .9575 54831  | .2965 84439  | .0430 54327  |
| 0.2925 | 0.2883 46939 | 0.9575 26001 | 0.2966 88746 | 1.0430 83991 |
| .2926  | .2884 42690  | .9574 97162  | .2967 93056  | .0431 13665  |
| .2927  | .2885 38438  | .9574 68313  | .2968 97368  | .0431 43349  |
| .2928  | .2886 34184  | .9574 39454  | .2970 01684  | .0431 73044  |
| .2929  | .2887 29926  | .9574 10586  | .2971 06003  | .0432 02750  |
| 0.2930 | 0.2888 25666 | 0.9573 81708 | 0.2972 10325 | 1.0432 32466 |
| .2931  | .2889 21402  | .9573 52821  | .2973 14650  | .0432 62192  |
| .2932  | .2890 17136  | .9573 23924  | .2974 18977  | .0432 91928  |
| .2933  | .2891 12867  | .9572 95017  | .2975 23308  | .0433 21676  |
| .2934  | .2892 08595  | .9572 66101  | .2976 27642  | .0433 51433  |
| 0.2935 | 0.2893 04320 | 0.9572 37176 | 0.2977 31978 | 1.0433 81201 |
| .2936  | .2894 00043  | .9572 08240  | .2978 36318  | .0434 10980  |
| .2937  | .2894 95762  | .9571 79296  | .2979 40660  | .0434 40768  |
| .2938  | .2895 91478  | .9571 50341  | .2980 45006  | .0434 70568  |
| .2939  | .2896 87192  | .9571 21377  | .2981 49355  | .0435 00377  |
| 0.2940 | 0.2897 82903 | 0.9570 92404 | 0.2982 53706 | 1.0435 30198 |
| .2941  | .2898 78611  | .9570 63421  | .2983 58061  | .0435 60028  |
| .2942  | .2899 74315  | .9570 34428  | .2984 62418  | .0435 89869  |
| .2943  | .2900 70017  | .9570 05426  | .2985 66779  | .0436 19721  |
| .2944  | .2901 65717  | .9569 76414  | .2986 71142  | .0436 49583  |
| 0.2945 | 0.2902 61413 | 0.9569 47393 | 0.2987 75509 | 1.0436 79455 |
| .2946  | .2903 57106  | .9569 18362  | .2988 79878  | .0437 09338  |
| .2947  | .2904 52796  | .9568 89321  | .2989 84250  | .0437 39231  |
| .2948  | .2905 48484  | .9568 60271  | .2990 88626  | .0437 69134  |
| .2949  | .2906 44168  | .9568 31212  | .2991 93004  | .0437 99049  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.2950 | 0.2907 39850 | 0.9568 02142 | 0.2992 97386 | 1.0439 28973 |
| .2951  | .2908 35529  | .9567 73064  | .2994 01770  | .0439 58808  |
| .2952  | .2909 31205  | .9567 43975  | .2995 06157  | .0439 68853  |
| .2953  | .2910 26878  | .9567 14877  | .2996 10548  | .0439 18809  |
| .2954  | .2911 22548  | .9566 85770  | .2997 14941  | .0439 48776  |
| 0.2955 | 0.2912 18215 | 0.9566 56653 | 0.2998 19338 | 1.0439 78752 |
| .2956  | .2913 13879  | .9566 27526  | .2999 23737  | .0440 08739  |
| .2957  | .2914 09540  | .9565 98390  | .3000 28139  | .0440 38737  |
| .2958  | .2915 05199  | .9565 69244  | .3001 32541  | .0440 68745  |
| .2959  | .2916 00854  | .9565 40089  | .3002 36953  | .0440 98764  |
| 0.2960 | 0.2916 96507 | 0.9565 10924 | 0.3003 41364 | 1.0441 28792 |
| .2961  | .2917 92156  | .9564 81750  | .3004 45779  | .0441 58832  |
| .2962  | .2918 87803  | .9564 52566  | .3005 50196  | .0441 88882  |
| .2963  | .2919 83447  | .9564 23372  | .3006 54617  | .0442 18942  |
| .2964  | .2920 79088  | .9563 94169  | .3007 59040  | .0442 49013  |
| 0.2965 | 0.2921 74726 | 0.9563 64956 | 0.3008 63466 | 1.0442 79094 |
| .2966  | .2922 70361  | .9563 35734  | .3009 67896  | .0443 09185  |
| .2967  | .2923 65993  | .9563 06502  | .3010 72328  | .0443 39287  |
| .2968  | .2924 61622  | .9562 77261  | .3011 76764  | .0443 69400  |
| .2969  | .2925 57248  | .9562 48010  | .3012 81202  | .0443 99523  |
| 0.2970 | 0.2926 52872 | 0.9562 18749 | 0.3013 85644 | 1.0444 29656 |
| .2971  | .2927 48492  | .9561 89479  | .3014 90088  | .0444 59800  |
| .2972  | .2928 44110  | .9561 60200  | .3015 94536  | .0444 89954  |
| .2973  | .2929 39724  | .9561 30911  | .3016 98986  | .0445 20119  |
| .2974  | .2930 35336  | .9561 01612  | .3018 03440  | .0445 50264  |
| 0.2975 | 0.2931 30944 | 0.9560 72303 | 0.3019 07896 | 1.0445 80479 |
| .2976  | .2932 26550  | .9560 42986  | .3020 12356  | .0446 10675  |
| .2977  | .2933 22153  | .9560 13658  | .3021 16818  | .0446 40882  |
| .2978  | .2934 17753  | .9559 84321  | .3022 21284  | .0446 71099  |
| .2979  | .2935 13350  | .9559 54975  | .3023 25752  | .0447 01326  |
| 0.2980 | 0.2936 08944 | 0.9559 25618 | 0.3024 30224 | 1.0447 31564 |
| .2981  | .2937 04535  | .9558 96253  | .3025 34699  | .0447 61812  |
| .2982  | .2938 00123  | .9558 66878  | .3026 39176  | .0447 92071  |
| .2983  | .2938 95708  | .9558 37493  | .3027 43657  | .0448 22340  |
| .2984  | .2939 91291  | .9558 08098  | .3028 48141  | .0448 52619  |
| 0.2985 | 0.2940 86870 | 0.9557 78695 | 0.3029 52628 | 1.0448 82910 |
| .2986  | .2941 82446  | .9557 49281  | .3030 57117  | .0449 13210  |
| .2987  | .2942 78020  | .9557 19858  | .3031 61610  | .0449 43521  |
| .2988  | .2943 73590  | .9556 90425  | .3032 66106  | .0449 73842  |
| .2989  | .2944 69158  | .9556 60983  | .3033 70605  | .0450 04174  |
| 0.2990 | 0.2945 64723 | 0.9556 31532 | 0.3034 75107 | 1.0450 34516 |
| .2991  | .2946 60284  | .9556 02070  | .3035 79612  | .0450 64869  |
| .2992  | .2947 55843  | .9555 72600  | .3036 84120  | .0450 95232  |
| .2993  | .2948 51399  | .9555 43119  | .3037 88631  | .0451 25606  |
| .2994  | .2949 46952  | .9555 13629  | .3038 93145  | .0451 55990  |
| 0.2995 | 0.2950 42501 | 0.9554 84130 | 0.3039 97662 | 1.0451 86385 |
| .2996  | .2951 38048  | .9554 54621  | .3041 02182  | .0452 16790  |
| .2997  | .2952 33592  | .9554 25102  | .3042 06706  | .0452 47205  |
| .2998  | .2953 29133  | .9553 95574  | .3043 11232  | .0452 77631  |
| .2999  | .2954 24672  | .9553 66036  | .3044 15761  | .0453 08067  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.3000 | 0.2955 20207 | 0.9553 36489 | 0.3045 20293 | 1.0453 38514 |
| .3001  | .2956 15739  | .9553 06932  | .3046 24829  | .0453 68971  |
| .3002  | .2957 11268  | .9552 77366  | .3047 29367  | .0453 99439  |
| .3003  | .2958 06794  | .9552 47790  | .3048 33909  | .0454 29917  |
| .3004  | .2959 02318  | .9552 18205  | .3049 38453  | .0454 60406  |
| 0.3005 | 0.2959 97838 | 0.9551 88610 | 0.3050 43001 | 1.0454 90905 |
| .3006  | .2960 93355  | .9551 59005  | .3051 47551  | .0455 21414  |
| .3007  | .2961 88870  | .9551 29391  | .3052 52105  | .0455 51934  |
| .3008  | .2962 84381  | .9550 99767  | .3053 56662  | .0455 82465  |
| .3009  | .2963 79890  | .9550 70134  | .3054 61222  | .0456 13006  |
| 0.3010 | 0.2964 75395 | 0.9550 40491 | 0.3055 65784 | 1.0456 43557 |
| .3011  | .2965 70898  | .9550 10839  | .3056 70350  | .0456 74119  |
| .3012  | .2966 66397  | .9549 81177  | .3057 74919  | .0457 04691  |
| .3013  | .2967 61894  | .9549 51506  | .3058 79491  | .0457 35274  |
| .3014  | .2968 57388  | .9549 21825  | .3059 84066  | .0457 65867  |
| 0.3015 | 0.2969 52878 | 0.9548 92134 | 0.3060 88644 | 1.0457 96471 |
| .3016  | .2970 48366  | .9548 62434  | .3061 93226  | .0458 27085  |
| .3017  | .2971 43851  | .9548 32725  | .3062 97810  | .0458 57709  |
| .3018  | .2972 39333  | .9548 03005  | .3064 02397  | .0458 88344  |
| .3019  | .2973 34811  | .9547 73277  | .3065 06987  | .0459 18990  |
| 0.3020 | 0.2974 30287 | 0.9547 43538 | 0.3066 11581 | 1.0459 49646 |
| .3021  | .2975 25760  | .9547 13791  | .3067 16177  | .0459 80312  |
| .3022  | .2976 21230  | .9546 84033  | .3068 20777  | .0460 10989  |
| .3023  | .2977 16697  | .9546 54266  | .3069 25380  | .0460 41676  |
| .3024  | .2978 12161  | .9546 24490  | .3070 29985  | .0460 72374  |
| 0.3025 | 0.2979 07622 | 0.9545 94704 | 0.3071 34594 | 1.0461 03082 |
| .3026  | .2980 03080  | .9545 64908  | .3072 39206  | .0461 33801  |
| .3027  | .2980 98535  | .9545 35103  | .3073 43821  | .0461 64530  |
| .3028  | .2981 93987  | .9545 05289  | .3074 48439  | .0461 95270  |
| .3029  | .2982 89436  | .9544 75465  | .3075 53060  | .0462 26020  |
| 0.3030 | 0.2983 84882 | 0.9544 45631 | 0.3076 57684 | 1.0462 56780 |
| .3031  | .2984 80325  | .9544 15788  | .3077 62311  | .0462 87551  |
| .3032  | .2985 75765  | .9543 85935  | .3078 66942  | .0463 18333  |
| .3033  | .2986 71202  | .9543 56072  | .3079 71575  | .0463 49125  |
| .3034  | .2987 66636  | .9543 26201  | .3080 76211  | .0463 79927  |
| 0.3035 | 0.2988 62067 | 0.9542 96319 | 0.3081 80851 | 1.0464 10740 |
| .3036  | .2989 57496  | .9542 66428  | .3082 85494  | .0464 41563  |
| .3037  | .2990 52921  | .9542 36528  | .3083 90139  | .0464 72397  |
| .3038  | .2991 48343  | .9542 06618  | .3084 94788  | .0465 03241  |
| .3039  | .2992 43762  | .9541 76698  | .3085 99440  | .0465 34096  |
| 0.3040 | 0.2993 39178 | 0.9541 46769 | 0.3087 04095 | 1.0465 64961 |
| .3041  | .2994 34591  | .9541 16830  | .3088 08753  | .0465 95837  |
| .3042  | .2995 30002  | .9540 86882  | .3089 13414  | .0466 26723  |
| .3043  | .2996 25409  | .9540 56924  | .3090 18078  | .0466 57620  |
| .3044  | .2997 20813  | .9540 26957  | .3091 22746  | .0466 88527  |
| 0.3045 | 0.2998 16214 | 0.9539 96980 | 0.3092 27416 | 1.0467 19444 |
| .3046  | .2999 11612  | .9539 66994  | .3093 32089  | .0467 50372  |
| .3047  | .3000 07008  | .9539 36998  | .3094 36766  | .0467 81311  |
| .3048  | .3001 02400  | .9539 06992  | .3095 41446  | .0468 12259  |
| .3049  | .3001 97769  | .9538 76977  | .3096 46128  | .0468 43219  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.3050 | 0.3002 93175 | 0.9538 46953 | 0.3097 50814 | 1.0468 74189 |
| .3051  | .3003 88558  | .9538 16918  | .3098 55503  | .0469 05189  |
| .3052  | .3004 83939  | .9537 86875  | .3099 60195  | .0469 36160  |
| .3053  | .3005 79316  | .9537 56822  | .3100 64891  | .0469 67161  |
| .3054  | .3006 74690  | .9537 26759  | .3101 69589  | .0469 98173  |
| 0.3055 | 0.3007 70061 | 0.9536 96687 | 0.3102 74290 | 1.0470 29195 |
| .3056  | .3008 65429  | .9536 66605  | .3103 78995  | .0470 60228  |
| .3057  | .3009 60794  | .9536 36514  | .3104 83702  | .0470 91271  |
| .3058  | .3010 56157  | .9536 06413  | .3105 88413  | .0471 22324  |
| .3059  | .3011 51516  | .9535 76302  | .3106 93127  | .0471 53388  |
| 0.3060 | 0.3012 46872 | 0.9535 46183 | 0.3107 97844 | 1.0471 84463 |
| .3061  | .3013 42225  | .9535 16053  | .3109 02564  | .0472 15548  |
| .3062  | .3014 37575  | .9534 85914  | .3110 07287  | .0472 46644  |
| .3063  | .3015 32922  | .9534 55766  | .3111 12013  | .0472 77749  |
| .3064  | .3016 28266  | .9534 25607  | .3112 16742  | .0473 08866  |
| 0.3065 | 0.3017 23607 | 0.9533 95440 | 0.3113 21475 | 1.0473 39993 |
| .3066  | .3018 18945  | .9533 65263  | .3114 26210  | .0473 71130  |
| .3067  | .3019 14280  | .9533 35076  | .3115 30949  | .0474 02278  |
| .3068  | .3020 09612  | .9533 04880  | .3116 35691  | .0474 33436  |
| .3069  | .3021 04941  | .9532 74674  | .3117 40436  | .0474 64605  |
| 0.3070 | 0.3022 00267 | 0.9532 44459 | 0.3118 45184 | 1.0474 95784 |
| .3071  | .3022 95590  | .9532 14234  | .3119 49935  | .0475 26974  |
| .3072  | .3023 90910  | .9531 84000  | .3120 54689  | .0475 58174  |
| .3073  | .3024 86227  | .9531 53756  | .3121 59446  | .0475 89385  |
| .3074  | .3025 81541  | .9531 23503  | .3122 64207  | .0476 20606  |
| 0.3075 | 0.3026 76852 | 0.9530 93240 | 0.3123 68970 | 1.0476 51838 |
| .3076  | .3027 72160  | .9530 62967  | .3124 73737  | .0476 83080  |
| .3077  | .3028 67464  | .9530 32685  | .3125 78507  | .0477 14333  |
| .3078  | .3029 62766  | .9530 02394  | .3126 83280  | .0477 45596  |
| .3079  | .3030 58065  | .9529 72093  | .3127 88056  | .0477 76869  |
| 0.3080 | 0.3031 53360 | 0.9529 41782 | 0.3128 92835 | 1.0478 08153 |
| .3081  | .3032 48653  | .9529 11462  | .3129 97618  | .0478 39448  |
| .3082  | .3033 43943  | .9528 81132  | .3131 02403  | .0478 70753  |
| .3083  | .3034 39229  | .9528 50793  | .3132 07192  | .0479 02068  |
| .3084  | .3035 34513  | .9528 20445  | .3133 11984  | .0479 33394  |
| 0.3085 | 0.3036 29793 | 0.9527 90086 | 0.3134 16779 | 1.0479 64731 |
| .3086  | .3037 25071  | .9527 59719  | .3135 21577  | .0479 96078  |
| .3087  | .3038 20345  | .9527 29341  | .3136 26378  | .0480 27435  |
| .3088  | .3039 15617  | .9526 98954  | .3137 31182  | .0480 58803  |
| .3089  | .3040 10885  | .9526 68558  | .3138 35990  | .0480 90181  |
| 0.3090 | 0.3041 06151 | 0.9526 38152 | 0.3139 40800 | 1.0481 21570 |
| .3091  | .3042 01413  | .9526 07737  | .3140 45614  | .0481 52970  |
| .3092  | .3042 96672  | .9525 77312  | .3141 50431  | .0481 84379  |
| .3093  | .3043 91928  | .9525 46878  | .3142 55251  | .0482 15800  |
| .3094  | .3044 87181  | .9525 16434  | .3143 60074  | .0482 47230  |
| 0.3095 | 0.3045 82432 | 0.9524 85980 | 0.3144 64900 | 1.0482 78672 |
| .3096  | .3046 77679  | .9524 55517  | .3145 69730  | .0483 10123  |
| .3097  | .3047 72923  | .9524 25045  | .3146 74562  | .0483 41586  |
| .3098  | .3048 68164  | .9523 94563  | .3147 79398  | .0483 73058  |
| .3099  | .3049 63402  | .9523 64071  | .3148 84237  | .0484 04542  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.3100 | 0.3050 58636 | 0.9523 33570 | 0.3149 89079 | 1.0484 36035 |
| .3101  | .3051 53868  | .9523 03059  | .3150 93924  | .0484 67539  |
| .3102  | .3052 49097  | .9522 72539  | .3151 98772  | .0484 99054  |
| .3103  | .3053 44323  | .9522 42009  | .3153 03624  | .0485 30579  |
| .3104  | .3054 39545  | .9522 11470  | .3154 08479  | .0485 62115  |
| 0.3105 | 0.3055 34765 | 0.9521 80922 | 0.3155 13336 | 1.0485 93661 |
| .3106  | .3056 29982  | .9521 50363  | .3156 18197  | .0486 25217  |
| .3107  | .3057 25195  | .9521 19796  | .3157 23061  | .0486 56784  |
| .3108  | .3058 20406  | .9520 89218  | .3158 27929  | .0486 88362  |
| .3109  | .3059 15613  | .9520 58631  | .3159 32799  | .0487 19950  |
| 0.3110 | 0.3060 10817 | 0.9520 28035 | 0.3160 37673 | 1.0487 51549 |
| .3111  | .3061 06019  | .9519 97429  | .3161 42549  | .0487 83158  |
| .3112  | .3062 01217  | .9519 66814  | .3162 47429  | .0488 14777  |
| .3113  | .3062 96412  | .9519 36189  | .3163 52312  | .0488 46407  |
| .3114  | .3063 91604  | .9519 05555  | .3164 57199  | .0488 78048  |
| 0.3115 | 0.3064 86793 | 0.9518 74911 | 0.3165 62088 | 1.0489 09699 |
| .3116  | .3065 81979  | .9518 44257  | .3166 66981  | .0489 41360  |
| .3117  | .3066 77162  | .9518 13594  | .3167 71876  | .0489 73032  |
| .3118  | .3067 72342  | .9517 82922  | .3168 76775  | .0490 4714   |
| .3119  | .3068 67519  | .9517 52240  | .3169 81677  | .0490 36407  |
| 0.3120 | 0.3069 62692 | 0.9517 21548 | 0.3170 86582 | 1.0490 68111 |
| .3121  | .3070 57863  | .9516 90947  | .3171 91491  | .0490 99825  |
| .3122  | .3071 53030  | .9516 60137  | .3172 96402  | .0491 31549  |
| .3123  | .3072 48195  | .9516 29417  | .3174 01317  | .0491 63284  |
| .3124  | .3073 43356  | .9515 98687  | .3175 06235  | .0491 95029  |
| 0.3125 | 0.3074 38515 | 0.9515 67948 | 0.3176 11156 | 1.0492 26785 |
| .3126  | .3075 33670  | .9515 37199  | .3177 16080  | .0492 58551  |
| .3127  | .3076 28822  | .9515 06441  | .3178 21008  | .0492 90328  |
| .3128  | .3077 23971  | .9514 75674  | .3179 25938  | .0493 22116  |
| .3129  | .3078 19117  | .9514 44897  | .3180 30872  | .0493 53913  |
| 0.3130 | 0.3079 14260 | 0.9514 14110 | 0.3181 35809 | 1.0493 85722 |
| .3131  | .3080 09400  | .9513 83314  | .3182 40749  | .0494 17541  |
| .3132  | .3081 04537  | .9513 52508  | .3183 45693  | .0494 49370  |
| .3133  | .3081 99670  | .9513 21693  | .3184 50639  | .0494 81210  |
| .3134  | .3082 94801  | .9512 90868  | .3185 55589  | .0495 13060  |
| 0.3135 | 0.3083 89929 | 0.9512 60034 | 0.3186 60542 | 1.0495 44921 |
| .3136  | .3084 85053  | .9512 29190  | .3187 65498  | .0495 76792  |
| .3137  | .3085 80174  | .9511 98337  | .3188 70457  | .0496 08674  |
| .3138  | .3086 75293  | .9511 67474  | .3189 75420  | .0496 40566  |
| .3139  | .3087 70408  | .9511 36602  | .3190 80385  | .0496 72469  |
| 0.3140 | 0.3088 65520 | 0.9511 05720 | 0.3191 85354 | 1.0497 04382 |
| .3141  | .3089 60629  | .9510 74829  | .3192 90326  | .0497 36306  |
| .3142  | .3090 55735  | .9510 43928  | .3193 95301  | .0497 68240  |
| .3143  | .3091 50838  | .9510 13017  | .3195 00280  | .0498 00185  |
| .3144  | .3092 45938  | .9509 82098  | .3196 05261  | .0498 32140  |
| 0.3145 | 0.3093 41034 | 0.9509 51168 | 0.3197 10246 | 1.0498 64106 |
| .3146  | .3094 36128  | .9509 20229  | .3198 15234  | .0498 96083  |
| .3147  | .3095 31218  | .9508 89281  | .3199 20226  | .0499 28069  |
| .3148  | .3096 26306  | .9508 58323  | .3200 25220  | .0499 60067  |
| .3149  | .3097 21390  | .9508 27356  | .3201 30218  | .0499 92074  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.3150 | 0.3098 16471 | 0.9507 96379 | 0.3202 35218 | 1.0500 34093 |
| .3151  | .3099 11549  | .9507 65393  | .3203 40222  | .0500 56121  |
| .3152  | .3100 06624  | .9507 34397  | .3204 45230  | .0500 81161  |
| .3153  | .3101 01696  | .9507 03391  | .3205 50240  | .0501 20210  |
| .3154  | .3101 96765  | .9506 72376  | .3206 55254  | .0501 52271  |
| 0.3155 | 0.3102 91831 | 0.9506 41352 | 0.3207 60270 | 1.0501 84341 |
| .3156  | .3103 86893  | .9506 10318  | .3209 65290  | .0502 16423  |
| .3157  | .3104 81953  | .9505 79274  | .3209 70314  | .0502 48515  |
| .3158  | .3105 77009  | .9505 48222  | .3210 75340  | .0502 80617  |
| .3159  | .3106 72062  | .9505 17159  | .3211 80370  | .0503 12730  |
| 0.3160 | 0.3107 67113 | 0.9504 86087 | 0.3212 85403 | 1.0503 44853 |
| .3161  | .3108 62160  | .9504 55006  | .3213 90439  | .0503 76987  |
| .3162  | .3109 57204  | .9504 23915  | .3214 95478  | .0504 09131  |
| .3163  | .3110 52244  | .9503 92814  | .3216 00521  | .0504 41286  |
| .3164  | .3111 47282  | .9503 61704  | .3217 05566  | .0504 73451  |
| 0.3165 | 0.3112 42317 | 0.9503 30585 | 0.3218 10615 | 1.0505 05627 |
| .3166  | .3113 37348  | .9502 99456  | .3219 15668  | .0505 37813  |
| .3167  | .3114 32377  | .9502 68317  | .3220 20723  | .0505 70010  |
| .3168  | .3115 27402  | .9502 37169  | .3221 25782  | .0506 02217  |
| .3169  | .3116 22424  | .9502 06012  | .3222 30843  | .0506 34435  |
| 0.3170 | 0.3117 17443 | 0.9501 74845 | 0.3223 35908 | 1.0506 66604 |
| .3171  | .3118 12459  | .9501 43668  | .3224 40977  | .0506 98902  |
| .3172  | .3119 07472  | .9501 12482  | .3225 46048  | .0507 31152  |
| .3173  | .3120 02482  | .9500 81287  | .3226 51123  | .0507 63412  |
| .3174  | .3120 97488  | .9500 50082  | .3227 56201  | .0507 95682  |
| 0.3175 | 0.3121 92492 | 0.9500 18867 | 0.3228 61282 | 1.0508 27963 |
| .3176  | .3122 87492  | .9499 87643  | .3229 66366  | .0508 60254  |
| .3177  | .3123 82489  | .9499 56410  | .3230 71454  | .0508 92556  |
| .3178  | .3124 77483  | .9499 25167  | .3231 76545  | .0509 24868  |
| .3179  | .3125 72474  | .9498 93914  | .3232 81639  | .0509 57191  |
| 0.3180 | 0.3126 67462 | 0.9498 62652 | 0.3233 86736 | 1.0509 89525 |
| .3181  | .3127 62447  | .9498 31381  | .3234 91837  | .0510 21869  |
| .3182  | .3128 57428  | .9498 00100  | .3235 96941  | .0510 54223  |
| .3183  | .3129 52407  | .9497 68809  | .3237 02048  | .0510 86588  |
| .3184  | .3130 47382  | .9497 37509  | .3238 07158  | .0511 18964  |
| 0.3185 | 0.3131 42354 | 0.9497 06200 | 0.3239 12272 | 1.0511 51350 |
| .3186  | .3132 37323  | .9496 74881  | .3240 17388  | .0511 83746  |
| .3187  | .3133 32289  | .9496 43552  | .3241 22508  | .0512 16153  |
| .3188  | .3134 27252  | .9496 12214  | .3242 27632  | .0512 48571  |
| .3189  | .3135 22212  | .9495 80867  | .3243 32758  | .0512 80999  |
| 0.3190 | 0.3136 17168 | 0.9495 49510 | 0.3244 37888 | 1.0513 13437 |
| .3191  | .3137 12121  | .9495 18144  | .3245 43021  | .0513 45886  |
| .3192  | .3138 07072  | .9494 86768  | .3246 48157  | .0513 78346  |
| .3193  | .3139 02019  | .9494 55382  | .3247 53296  | .0514 10816  |
| .3194  | .3139 96963  | .9494 23987  | .3248 58439  | .0514 43296  |
| 0.3195 | 0.3140 91904 | 0.9493 92583 | 0.3249 63585 | 1.0514 75787 |
| .3196  | .3141 86841  | .9493 61169  | .3250 68734  | .0515 08289  |
| .3197  | .3142 81776  | .9493 29745  | .3251 73887  | .0515 40801  |
| .3198  | .3143 76707  | .9492 98312  | .3252 79042  | .0515 73324  |
| .3199  | .3144 71636  | .9492 66870  | .3253 84201  | .0516 05857  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.3200 | 0.3145 66561 | 0.9492 35418 | 0.3254 89364 | 1.0516 38401 |
| .3201  | .3146 61483  | .9492 03957  | .3255 94529  | .0516 70955  |
| .3202  | .3147 56401  | .9491 72486  | .3256 99698  | .0517 03520  |
| .3203  | .3148 51317  | .9491 41005  | .3258 04870  | .0517 36095  |
| .3204  | .3149 46230  | .9491 09516  | .3259 10045  | .0517 68621  |
| 0.3205 | 0.3150 41139 | 0.9490 78016 | 0.3260 15224 | 1.0518 01277 |
| .3206  | .3151 36045  | .9490 46507  | .3261 20405  | .0518 33884  |
| .3207  | .3152 30948  | .9490 14989  | .3262 25590  | .0518 66501  |
| .3208  | .3153 25848  | .9489 83461  | .3263 30779  | .0518 99129  |
| .3209  | .3154 20745  | .9489 51924  | .3264 35970  | .0519 31767  |
| 0.3210 | 0.3155 15639 | 0.9489 20377 | 0.3265 41165 | 1.0519 64416 |
| .3211  | .3156 10529  | .9488 88821  | .3266 46363  | .0519 97075  |
| .3212  | .3157 05416  | .9488 57255  | .3267 51564  | .0520 29745  |
| .3213  | .3158 00301  | .9488 25680  | .3268 56769  | .0520 62426  |
| .3214  | .3158 95181  | .9487 94095  | .3269 61977  | .0520 95117  |
| 0.3215 | 0.3159 90059 | 0.9487 62501 | 0.3270 67188 | 1.0521 27818 |
| .3216  | .3160 84934  | .9487 30897  | .3271 72402  | .0521 60530  |
| .3217  | .3161 79806  | .9486 99284  | .3272 77620  | .0521 93253  |
| .3218  | .3162 74674  | .9486 67661  | .3273 82841  | .0522 25986  |
| .3219  | .3163 69539  | .9486 36029  | .3274 88065  | .0522 58729  |
| 0.3220 | 0.3164 64401 | 0.9486 04387 | 0.3275 93293 | 1.0522 91483 |
| .3221  | .3165 59260  | .9485 72736  | .3276 98524  | .0523 24248  |
| .3222  | .3166 54116  | .9485 41075  | .3278 03758  | .0523 57023  |
| .3223  | .3167 48968  | .9485 09405  | .3279 08995  | .0523 89808  |
| .3224  | .3168 43817  | .9484 77725  | .3280 14236  | .0524 22605  |
| 0.3225 | 0.3169 38664 | 0.9484 46036 | 0.3281 19480 | 1.0524 55411 |
| .3226  | .3170 33507  | .9484 14338  | .3282 24727  | .0524 88229  |
| .3227  | .3171 28347  | .9483 82629  | .3283 29977  | .0525 21056  |
| .3228  | .3172 23183  | .9483 50912  | .3284 35231  | .0525 53895  |
| .3229  | .3173 18017  | .9483 19185  | .3285 40488  | .0525 86743  |
| 0.3230 | 0.3174 12847 | 0.9482 87448 | 0.3286 45748 | 1.0526 19603 |
| .3231  | .3175 07674  | .9482 55702  | .3287 51012  | .0526 52472  |
| .3232  | .3176 02498  | .9482 23947  | .3288 56279  | .0526 85353  |
| .3233  | .3176 97319  | .9481 92182  | .3289 61549  | .0527 18244  |
| .3234  | .3177 92137  | .9481 60407  | .3290 66822  | .0527 51145  |
| 0.3235 | 0.3178 86951 | 0.9481 28623 | 0.3291 72099 | 1.0527 84057 |
| .3236  | .3179 81762  | .9480 96830  | .3292 77379  | .0528 16980  |
| .3237  | .3180 76570  | .9480 65027  | .3293 82663  | .0528 49913  |
| .3238  | .3181 71375  | .9480 33215  | .3294 87949  | .0528 82856  |
| .3239  | .3182 66177  | .9480 01393  | .3295 93239  | .0529 15810  |
| 0.3240 | 0.3183 60976 | 0.9479 69561 | 0.3296 98532 | 1.0529 48775 |
| .3241  | .3184 55771  | .9479 37720  | .3298 03829  | .0529 81750  |
| .3242  | .3185 50563  | .9479 05870  | .3299 09129  | .0530 14736  |
| .3243  | .3186 45352  | .9478 74010  | .3300 14432  | .0530 47732  |
| .3244  | .3187 40138  | .9478 42141  | .3301 19738  | .0530 80738  |
| 0.3245 | 0.3188 34921 | 0.9478 10262 | 0.3302 25048 | 1.0531 13756 |
| .3246  | .3189 29700  | .9477 78374  | .3303 30361  | .0531 46783  |
| .3247  | .3190 24476  | .9477 46476  | .3304 35677  | .0531 79822  |
| .3248  | .3191 19249  | .9477 14569  | .3305 40997  | .0532 12871  |
| .3249  | .3192 14019  | .9476 82653  | .3306 46320  | .0532 45930  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.3250 | 0.3193 08786 | 0.9476 50726 | 0.3307 51646 | 1.0532 79000 |
| .3251  | .3194 03549  | .9476 18791  | .3308 56076  | .0533 12080  |
| .3252  | .3194 98310  | .9475 68846  | .3309 62309  | .0533 45171  |
| .3253  | .3195 93067  | .9475 54891  | .3310 67645  | .0533 78273  |
| .3254  | .3196 87821  | .9475 22927  | .3311 72984  | .0534 11385  |
| 0.3255 | 0.3197 82571 | 0.9474 90954 | 0.3312 78327 | 1.0534 44507 |
| .3256  | .3198 77319  | .9474 58971  | .3313 83673  | .0534 77640  |
| .3257  | .3199 72063  | .9474 26078  | .3314 89023  | .0535 10784  |
| .3258  | .3200 66804  | .9473 94076  | .3315 94375  | .0535 43938  |
| .3259  | .3201 61542  | .9473 62965  | .3316 99731  | .0535 77103  |
| 0.3260 | 0.3202 56277 | 0.9473 30944 | 0.3318 05001 | 1.0536 10378 |
| .3261  | .3203 51008  | .9472 98913  | .3319 10453  | .0536 43464  |
| .3262  | .3204 45737  | .9472 66874  | .3320 15819  | .0536 76660  |
| .3263  | .3205 40462  | .9472 34824  | .3321 21189  | .0537 09867  |
| .3264  | .3206 35184  | .9472 02766  | .3322 26561  | .0537 43084  |
| 0.3265 | 0.3207 29902 | 0.9471 70697 | 0.3323 31937 | 1.0537 76312 |
| .3266  | .3208 24618  | .9471 38620  | .3324 37317  | .0538 09551  |
| .3267  | .3209 19330  | .9471 06532  | .3325 42699  | .0538 42800  |
| .3268  | .3210 14039  | .9470 74436  | .3326 48085  | .0539 76059  |
| .3269  | .3211 08745  | .9470 42330  | .3327 53474  | .0539 09329  |
| 0.3270 | 0.3212 03447 | 0.9470 10214 | 0.3328 58867 | 1.0539 42610 |
| .3271  | .3212 98147  | .9469 78089  | .3329 64263  | .0539 75901  |
| .3272  | .3213 92843  | .9469 45954  | .3330 69662  | .0540 09203  |
| .3273  | .3214 87536  | .9469 13810  | .3331 75065  | .0540 42515  |
| .3274  | .3215 82226  | .9468 81657  | .3332 80471  | .0540 75838  |
| 0.3275 | 0.3216 76912 | 0.9468 49494 | 0.3333 85880 | 1.0541 09171 |
| .3276  | .3217 71596  | .9468 17321  | .3334 91293  | .0541 42515  |
| .3277  | .3218 66276  | .9467 85140  | .3335 96709  | .0541 75870  |
| .3278  | .3219 60953  | .9467 52948  | .3337 02128  | .0542 09234  |
| .3279  | .3220 55626  | .9467 20747  | .3338 07550  | .0542 42610  |
| 0.3280 | 0.3221 50297 | 0.9466 88537 | 0.3339 12976 | 1.0542 75996 |
| .3281  | .3222 44964  | .9466 56317  | .3340 18406  | .0543 09393  |
| .3282  | .3223 39628  | .9466 24088  | .3341 23838  | .0543 42800  |
| .3283  | .3224 34289  | .9465 91849  | .3342 29274  | .0543 76217  |
| .3284  | .3225 28947  | .9465 59601  | .3343 34713  | .0544 09646  |
| 0.3285 | 0.3226 23601 | 0.9465 27344 | 0.3344 40156 | 1.0544 43084 |
| .3286  | .3227 18252  | .9464 95076  | .3345 45602  | .0544 76534  |
| .3287  | .3228 12900  | .9464 62800  | .3346 51051  | .0545 09993  |
| .3288  | .3229 07545  | .9464 30514  | .3347 56504  | .0545 43464  |
| .3289  | .3230 02186  | .9463 98218  | .3348 61960  | .0545 76945  |
| 0.3290 | 0.3230 96824 | 0.9463 65913 | 0.3349 67419 | 1.0546 10436 |
| .3291  | .3231 91459  | .9463 33599  | .3350 72882  | .0546 43938  |
| .3292  | .3232 86091  | .9463 01275  | .3351 78348  | .0546 77451  |
| .3293  | .3233 80719  | .9462 68942  | .3352 83818  | .0547 10974  |
| .3294  | .3234 75345  | .9462 36599  | .3353 89290  | .0547 44508  |
| 0.3295 | 0.3235 69967 | 0.9462 04247 | 0.3354 94767 | 1.0547 78052 |
| .3296  | .3236 64586  | .9461 71885  | .3356 00246  | .0548 11606  |
| .3297  | .3237 59201  | .9461 39514  | .3357 05729  | .0548 45172  |
| .3298  | .3238 53813  | .9461 07133  | .3358 11215  | .0548 78748  |
| .3299  | .3239 48423  | .9460 74743  | .3359 16705  | .0549 12334  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.3300 | 0.3240 43028 | 0.9460 42344 | 0.3360 22198 | 1.0549 45931 |
| .3301  | .3241 37651  | .9460 09934  | .3361 27694  | .0549 79538  |
| .3302  | .3242 32230  | .9459 77516  | .3362 33193  | .0550 13156  |
| .3303  | .3243 26827  | .9459 45088  | .3363 38696  | .0550 46785  |
| .3304  | .3244 21419  | .9459 12651  | .3364 44203  | .0550 80424  |
| 0.3305 | 0.3245 16009 | 0.9458 80204 | 0.3365 49713 | 1.0551 14074 |
| .3306  | .3246 10595  | .9458 47747  | .3366 55226  | .0551 47734  |
| .3307  | .3247 05179  | .9458 15282  | .3367 60742  | .0551 81405  |
| .3308  | .3247 99758  | .9457 82806  | .3368 66262  | .0552 15086  |
| .3309  | .3248 94335  | .9457 50322  | .3369 71785  | .0552 48778  |
| 0.3310 | 0.3249 88909 | 0.9457 17828 | 0.3370 77312 | 1.0552 82481 |
| .3311  | .3250 83479  | .9456 85324  | .3371 82842  | .0553 16194  |
| .3312  | .3251 78046  | .9456 52811  | .3372 88375  | .0553 49917  |
| .3313  | .3252 72609  | .9456 20288  | .3373 93912  | .0553 83651  |
| .3314  | .3253 67170  | .9455 87756  | .3374 99452  | .0554 17396  |
| 0.3315 | 0.3254 61727 | 0.9455 55215 | 0.3376 04995 | 1.0554 51151 |
| .3316  | .3255 56281  | .9455 22664  | .3377 10542  | .0554 84917  |
| .3317  | .3256 50831  | .9454 90104  | .3378 16092  | .0555 18693  |
| .3318  | .3257 45379  | .9454 57534  | .3379 21646  | .0555 52480  |
| .3319  | .3258 39923  | .9454 24955  | .3380 27203  | .0555 86278  |
| 0.3320 | 0.3259 34464 | 0.9453 92366 | 0.3381 32763 | 1.0556 20086 |
| .3321  | .3260 29001  | .9453 59768  | .3382 38327  | .0556 53904  |
| .3322  | .3261 23536  | .9453 27160  | .3383 43894  | .0556 87733  |
| .3323  | .3262 18067  | .9452 94543  | .3384 49464  | .0557 21573  |
| .3324  | .3263 12595  | .9452 61916  | .3385 55038  | .0557 55423  |
| 0.3325 | 0.3264 07119 | 0.9452 29280 | 0.3386 60615 | 1.0557 89284 |
| .3326  | .3265 01640  | .9451 96635  | .3387 66196  | .0558 23155  |
| .3327  | .3265 96158  | .9451 63980  | .3388 71780  | .0558 57037  |
| .3328  | .3266 90673  | .9451 31316  | .3389 77367  | .0558 90930  |
| .3329  | .3267 85185  | .9450 98642  | .3390 82958  | .0559 24833  |
| 0.3330 | 0.3268 79693 | 0.9450 65959 | 0.3391 88552 | 1.0559 58746 |
| .3331  | .3269 74198  | .9450 33266  | .3392 94150  | .0559 92670  |
| .3332  | .3270 68700  | .9450 00564  | .3393 99751  | .0560 26605  |
| .3333  | .3271 63198  | .9449 67852  | .3395 05355  | .0560 60550  |
| .3334  | .3272 57693  | .9449 35131  | .3396 10963  | .0560 94506  |
| 0.3335 | 0.3273 52185 | 0.9449 02401 | 0.3397 16574 | 1.0561 28473 |
| .3336  | .3274 46674  | .9448 69661  | .3398 22188  | .0561 62450  |
| .3337  | .3275 41159  | .9448 36911  | .3399 27806  | .0561 96437  |
| .3338  | .3276 35641  | .9448 04153  | .3400 33428  | .0562 30435  |
| .3339  | .3277 30120  | .9447 71384  | .3401 39053  | .0562 64444  |
| 0.3340 | 0.3278 24595 | 0.9447 38607 | 0.3402 44681 | 1.0562 98463 |
| .3341  | .3279 19068  | .9447 05819  | .3403 50312  | .0563 32493  |
| .3342  | .3280 13537  | .9446 73023  | .3404 55947  | .0563 66533  |
| .3343  | .3281 08002  | .9446 40217  | .3405 61586  | .0564 00584  |
| .3344  | .3282 02465  | .9446 07401  | .3406 67227  | .0564 34645  |
| 0.3345 | 0.3282 96924 | 0.9445 74576 | 0.3407 72872 | 1.0564 68717 |
| .3346  | .3283 91379  | .9445 41742  | .3408 78521  | .0565 02800  |
| .3347  | .3284 85832  | .9445 08898  | .3409 84173  | .0565 36893  |
| .3348  | .3285 80281  | .9444 76045  | .3410 89828  | .0565 70997  |
| .3349  | .3286 74727  | .9444 43182  | .3411 95487  | .0566 05111  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.3350 | 0.3287 69170 | 0.9444 10310 | 0.3413 01149 | 1.0566 39236 |
| .3351  | .3288 63609  | .9443 77428  | .3414 00915  | .0566 73371  |
| .3352  | .3289 58045  | .9443 44537  | .3415 12484  | .0567 07517  |
| .3353  | .3290 52478  | .9443 11636  | .3416 18157  | .0567 41674  |
| .3354  | .3291 46908  | .9442 78726  | .3417 23332  | .0567 75841  |
| 0.3355 | 0.3292 41334 | 0.9442 45807 | 0.3418 29512 | 1.0568 10018 |
| .3356  | .3293 35757  | .9442 12878  | .3419 35154  | .0568 44207  |
| .3357  | .3294 30176  | .9441 79940  | .3420 40881  | .0568 78405  |
| .3358  | .3295 24593  | .9441 46992  | .3421 46570  | .0569 12615  |
| .3359  | .3296 19006  | .9441 14035  | .3422 52203  | .0569 46835  |
| 0.3360 | 0.3297 13416 | 0.9440 81068 | 0.3423 57959 | 1.0569 81065 |
| .3361  | .3298 07822  | .9440 48092  | .3424 63659  | .0570 15306  |
| .3362  | .3299 02225  | .9440 15107  | .3425 69363  | .0570 49558  |
| .3363  | .3299 96625  | .9439 82112  | .3426 75069  | .0570 83820  |
| .3364  | .3300 91022  | .9439 49107  | .3427 80779  | .0571 18093  |
| 0.3365 | 0.3301 85415 | 0.9439 16094 | 0.3428 86493 | 1.0571 52376 |
| .3366  | .3302 79805  | .9438 83070  | .3429 92210  | .0571 86670  |
| .3367  | .3303 74192  | .9438 50038  | .3430 97930  | .0572 20975  |
| .3368  | .3304 68575  | .9438 16996  | .3432 03654  | .0572 55290  |
| .3369  | .3305 62955  | .9437 83944  | .3433 09381  | .0572 89616  |
| 0.3370 | 0.3306 57332 | 0.9437 50883 | 0.3434 15112 | 1.0573 23952 |
| .3371  | .3307 51705  | .9437 17812  | .3435 20846  | .0573 58299  |
| .3372  | .3308 46075  | .9436 84733  | .3436 26584  | .0573 92656  |
| .3373  | .3309 40442  | .9436 51643  | .3437 32325  | .0574 27024  |
| .3374  | .3310 34806  | .9436 18544  | .3438 38060  | .0574 61402  |
| 0.3375 | 0.3311 29166 | 0.9435 85436 | 0.3439 43817 | 1.0574 95792 |
| .3376  | .3312 23523  | .9435 52319  | .3440 49568  | .0575 30191  |
| .3377  | .3313 17876  | .9435 19192  | .3441 55323  | .0575 64601  |
| .3378  | .3314 12227  | .9434 86055  | .3442 61081  | .0575 99022  |
| .3379  | .3315 06573  | .9434 52909  | .3443 66843  | .0576 33454  |
| 0.3380 | 0.3316 00917 | 0.9434 19754 | 0.3444 72608 | 1.0576 67896 |
| .3381  | .3316 95257  | .9433 86589  | .3445 78376  | .0577 02348  |
| .3382  | .3317 89594  | .9433 53415  | .3446 84148  | .0577 36811  |
| .3383  | .3318 83928  | .9433 20231  | .3447 89924  | .0577 71285  |
| .3384  | .3319 78258  | .9432 87038  | .3448 95702  | .0578 05769  |
| 0.3385 | 0.3320 72586 | 0.9432 53835 | 0.3450 01485 | 1.0578 40264 |
| .3386  | .3321 66909  | .9432 20623  | .3451 07271  | .0578 74770  |
| .3387  | .3322 61230  | .9431 87402  | .3452 13060  | .0579 09286  |
| .3388  | .3323 55547  | .9431 54171  | .3453 18852  | .0579 43812  |
| .3389  | .3324 49860  | .9431 20931  | .3454 24648  | .0579 78349  |
| 0.3390 | 0.3325 44171 | 0.9430 87681 | 0.3455 30448 | 1.0580 12897 |
| .3391  | .3326 38478  | .9430 54422  | .3456 36251  | .0580 47455  |
| .3392  | .3327 32782  | .9430 21153  | .3457 42058  | .0580 82024  |
| .3393  | .3328 27082  | .9429 87875  | .3458 47867  | .0581 16604  |
| .3394  | .3329 21379  | .9429 54588  | .3459 53681  | .0581 51194  |
| 0.3395 | 0.3330 15673 | 0.9429 21291 | 0.3460 59498 | 1.0581 85795 |
| .3396  | .3331 09964  | .9428 87985  | .3461 65318  | .0582 20406  |
| .3397  | .3332 04251  | .9428 54669  | .3462 71142  | .0582 55028  |
| .3398  | .3332 98535  | .9428 21344  | .3463 76969  | .0582 89660  |
| .3399  | .3333 92815  | .9427 88010  | .3464 82800  | .0583 24303  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.3400 | 0.3334 87092 | 0.9427 54666 | 0.3465 88634 | 1.0583 58957 |
| .3401  | .3335 81366  | .9427 21312  | .3466 94472  | .0583 93621  |
| .3402  | .3336 75636  | .9426 87949  | .3468 00313  | .0584 28296  |
| .3403  | .3337 69904  | .9426 54577  | .3469 06157  | .0584 62981  |
| .3404  | .3338 64167  | .9426 21195  | .3470 12005  | .0584 97677  |
| 0.3405 | 0.3339 58428 | 0.9425 87804 | 0.3471 17857 | 1.0585 32383 |
| .3406  | .3340 52685  | .9425 54404  | .3472 23712  | .0585 67100  |
| .3407  | .3341 46939  | .9425 20994  | .3473 29570  | .0586 01828  |
| .3408  | .3342 41189  | .9424 87574  | .3474 35432  | .0586 36566  |
| .3409  | .3343 35436  | .9424 54145  | .3475 41297  | .0586 71315  |
| 0.3410 | 0.3344 29680 | 0.9424 20707 | 0.3476 47166 | 1.0587 06075 |
| .3411  | .3345 23920  | .9423 87259  | .3477 53039  | .0587 40845  |
| .3412  | .3346 18157  | .9423 53802  | .3478 58914  | .0587 75625  |
| .3413  | .3347 12391  | .9423 20336  | .3479 64794  | .0588 10416  |
| .3414  | .3348 06621  | .9422 86860  | .3480 70677  | .0588 45218  |
| 0.3415 | 0.3349 00848 | 0.9422 53374 | 0.3481 76563 | 1.0588 80030 |
| .3416  | .3349 95072  | .9422 19880  | .3482 82453  | .0589 14853  |
| .3417  | .3350 89292  | .9421 86375  | .3483 88346  | .0589 49687  |
| .3418  | .3351 83509  | .9421 52862  | .3484 94243  | .0589 84531  |
| .3419  | .3352 77723  | .9421 19339  | .3486 00143  | .0590 19386  |
| 0.3420 | 0.3353 71933 | 0.9420 85806 | 0.3487 06046 | 1.0590 54251 |
| .3421  | .3354 66140  | .9420 52264  | .3488 11954  | .0590 89127  |
| .3422  | .3355 60344  | .9420 18713  | .3489 17864  | .0591 24014  |
| .3423  | .3356 54544  | .9419 85152  | .3490 23778  | .0591 58911  |
| .3424  | .3357 48741  | .9419 51582  | .3491 29696  | .0591 93818  |
| 0.3425 | 0.3358 42934 | 0.9419 18003 | 0.3492 35617 | 1.0592 28737 |
| .3426  | .3359 37124  | .9418 84414  | .3493 41542  | .0592 63665  |
| .3427  | .3360 31311  | .9418 50815  | .3494 47470  | .0592 98605  |
| .3428  | .3361 25494  | .9418 17207  | .3495 53401  | .0593 33555  |
| .3429  | .3362 19675  | .9417 83590  | .3496 59337  | .0593 68516  |
| 0.3430 | 0.3363 13851 | 0.9417 49963 | 0.3497 65275 | 1.0594 03487 |
| .3431  | .3364 08025  | .9417 16327  | .3498 71217  | .0594 38469  |
| .3432  | .3365 02194  | .9416 82682  | .3499 77163  | .0594 73461  |
| .3433  | .3365 96361  | .9416 49027  | .3500 83112  | .0595 08464  |
| .3434  | .3366 90524  | .9416 15362  | .3501 89065  | .0595 43478  |
| 0.3435 | 0.3367 84684 | 0.9415 81689 | 0.3502 95021 | 1.0595 78502 |
| .3436  | .3368 78841  | .9415 48006  | .3504 00980  | .0596 13537  |
| .3437  | .3369 72994  | .9415 14313  | .3505 06943  | .0596 48582  |
| .3438  | .3370 67143  | .9414 80611  | .3506 12910  | .0596 83638  |
| .3439  | .3371 61290  | .9414 46900  | .3507 18880  | .0597 18705  |
| 0.3440 | 0.3372 55433 | 0.9414 13179 | 0.3508 24854 | 1.0597 53782 |
| .3441  | .3373 49572  | .9413 79448  | .3509 30831  | .0597 88870  |
| .3442  | .3374 43709  | .9413 45709  | .3510 36812  | .0598 23968  |
| .3443  | .3375 37842  | .9413 11960  | .3511 42796  | .0598 59077  |
| .3444  | .3376 31971  | .9412 78201  | .3512 48783  | .0598 94197  |
| 0.3445 | 0.3377 26097 | 0.9412 44433 | 0.3513 54774 | 1.0599 29327 |
| .3446  | .3378 20220  | .9412 10656  | .3514 60769  | .0599 64467  |
| .3447  | .3379 14359  | .9411 76869  | .3515 66767  | .0599 99619  |
| .3448  | .3380 08455  | .9411 43073  | .3516 72769  | .0600 34781  |
| .3449  | .3381 02568  | .9411 09268  | .3517 78774  | .0600 69953  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.3450 | 0.3381 96677 | 0.9410 75453 | 0.3518 84783 | 1.0601 05137 |
| .3451  | .3382 90783  | .9410 41628  | .3519 90795  | .0601 40330  |
| .3452  | .3383 84886  | .9410 07794  | .3520 96811  | .0601 75535  |
| .3453  | .3384 78985  | .9409 73951  | .3522 02830  | .0602 10750  |
| .3454  | .3385 73080  | .9409 40099  | .3523 08853  | .0602 45975  |
| 0.3455 | 0.3386 67173 | 0.9409 06237 | 0.3524 14880 | 1.0602 81211 |
| .3456  | .3387 61262  | .9408 72365  | .3525 20910  | .0603 16458  |
| .3457  | .3388 55347  | .9408 38484  | .3526 26943  | .0603 51716  |
| .3458  | .3389 49429  | .9408 04594  | .3527 32980  | .0603 86984  |
| .3459  | .3390 43508  | .9407 70695  | .3528 39020  | .0604 22262  |
| 0.3460 | 0.3391 37583 | 0.9407 36785 | 0.3529 45064 | 1.0604 57551 |
| .3461  | .3392 31655  | .9407 02867  | .3530 51112  | .0604 92851  |
| .3462  | .3393 25724  | .9406 68939  | .3531 57163  | .0605 28162  |
| .3463  | .3394 19789  | .9406 35002  | .3532 63218  | .0605 63483  |
| .3464  | .3395 13851  | .9406 01055  | .3533 69276  | .0605 98814  |
| 0.3465 | 0.3396 07909 | 0.9405 67099 | 0.3534 75337 | 1.0606 34157 |
| .3466  | .3397 01964  | .9405 33134  | .3535 81402  | .0606 69509  |
| .3467  | .3397 96016  | .9404 99159  | .3536 87471  | .0607 04873  |
| .3468  | .3398 90064  | .9404 65174  | .3537 93543  | .0607 40247  |
| .3469  | .3399 84109  | .9404 31181  | .3538 99619  | .0607 75632  |
| 0.3470 | 0.3400 78151 | 0.9403 97178 | 0.3540 05699 | 1.0608 11027 |
| .3471  | .3401 72189  | .9403 63165  | .3541 11781  | .0608 46433  |
| .3472  | .3402 66223  | .9403 29143  | .3542 17868  | .0608 81849  |
| .3473  | .3403 60254  | .9402 95112  | .3543 23958  | .0609 17276  |
| .3474  | .3404 54282  | .9402 61071  | .3544 30051  | .0609 52714  |
| 0.3475 | 0.3405 48307 | 0.9402 27021 | 0.3545 36148 | 1.0609 88162 |
| .3476  | .3406 42328  | .9401 92961  | .3546 42249  | .0610 23621  |
| .3477  | .3407 36345  | .9401 58892  | .3547 48353  | .0610 59091  |
| .3478  | .3408 30359  | .9401 24814  | .3548 54461  | .0610 94571  |
| .3479  | .3409 24370  | .9400 90726  | .3549 60572  | .0611 30062  |
| 0.3480 | 0.3410 18377 | 0.9400 56629 | 0.3550 66687 | 1.0611 65563 |
| .3481  | .3411 12381  | .9400 22523  | .3551 72805  | .0612 01075  |
| .3482  | .3412 06382  | .9399 88407  | .3552 78927  | .0612 36598  |
| .3483  | .3413 00379  | .9399 54281  | .3553 85052  | .0612 72131  |
| .3484  | .3413 94373  | .9399 20147  | .3554 91181  | .0613 07675  |
| 0.3485 | 0.3414 88363 | 0.9398 86003 | 0.3555 97314 | 1.0613 43229 |
| .3486  | .3415 82350  | .9398 51849  | .3557 03450  | .0613 78794  |
| .3487  | .3416 76334  | .9398 17686  | .3558 09590  | .0614 14370  |
| .3488  | .3417 70314  | .9397 83514  | .3559 15733  | .0614 49956  |
| .3489  | .3418 64290  | .9397 49332  | .3560 21880  | .0614 85553  |
| 0.3490 | 0.3419 58263 | 0.9397 15141 | 0.3561 28030 | 1.0615 21160 |
| .3491  | .3420 52233  | .9396 80940  | .3562 34184  | .0615 56778  |
| .3492  | .3421 46200  | .9396 46730  | .3563 40341  | .0615 92407  |
| .3493  | .3422 40163  | .9396 12511  | .3564 46502  | .0616 28046  |
| .3494  | .3423 34122  | .9395 78282  | .3565 52667  | .0616 63696  |
| 0.3495 | 0.3424 28078 | 0.9395 44044 | 0.3566 58835 | 1.0616 99357 |
| .3496  | .3425 22031  | .9395 09797  | .3567 65007  | .0617 35028  |
| .3497  | .3426 15980  | .9394 75540  | .3568 71182  | .0617 70710  |
| .3498  | .3427 09926  | .9394 41274  | .3569 77361  | .0618 06402  |
| .3499  | .3428 03868  | .9394 06998  | .3570 83543  | .0618 42105  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.3500 | 0.3428 97807 | 0.9393 72713 | 0.3571 89729 | 1.0618 77819 |
| .3501  | .3429 91743  | .9393 38418  | .3572 95919  | .0619 13543  |
| .3502  | .3430 85675  | .9393 04114  | .3574 02112  | .0619 49278  |
| .3503  | .3431 79604  | .9392 69801  | .3575 08309  | .0619 85024  |
| .3504  | .3432 73529  | .9392 35479  | .3576 14509  | .0620 20780  |
| 0.3505 | 0.3433 67451 | 0.9392 01147 | 0.3577 20713 | 1.0620 56547 |
| .3506  | .3434 61369  | .9391 66805  | .3578 26920  | .0620 92324  |
| .3507  | .3435 55284  | .9391 32454  | .3579 33131  | .0621 28112  |
| .3508  | .3436 49196  | .9390 98094  | .3580 39346  | .0621 63911  |
| .3509  | .3437 43104  | .9390 63724  | .3581 45564  | .0621 99720  |
| 0.3510 | 0.3438 37009 | 0.9390 29345 | 0.3582 51766 | 1.0622 35540 |
| .3511  | .3439 30910  | .9389 94957  | .3583 58011  | .0622 71370  |
| .3512  | .3440 24808  | .9389 60559  | .3584 64240  | .0623 07211  |
| .3513  | .3441 18702  | .9389 26152  | .3585 70473  | .0623 43063  |
| .3514  | .3442 12593  | .9388 91735  | .3586 76709  | .0623 78926  |
| 0.3515 | 0.3443 06480 | 0.9388 57310 | 0.3587 82949 | 1.0624 14799 |
| .3516  | .3444 00364  | .9388 22874  | .3588 89192  | .0624 50682  |
| .3517  | .3444 94245  | .9387 88429  | .3589 95439  | .0624 86576  |
| .3518  | .3445 88122  | .9387 53975  | .3591 01689  | .0625 22481  |
| .3519  | .3446 81996  | .9387 19512  | .3592 07943  | .0625 58397  |
| 0.3520 | 0.3447 75866 | 0.9386 85039 | 0.3593 14201 | 1.0625 94323 |
| .3521  | .3448 69733  | .9386 50557  | .3594 20462  | .0626 30260  |
| .3522  | .3449 63596  | .9386 16065  | .3595 26727  | .0626 66207  |
| .3523  | .3450 57456  | .9385 81564  | .3596 32995  | .0627 02165  |
| .3524  | .3451 51312  | .9385 47054  | .3597 39267  | .0627 38134  |
| 0.3525 | 0.3452 45165 | 0.9385 12534 | 0.3598 45543 | 1.0627 74113 |
| .3526  | .3453 39015  | .9384 78004  | .3599 51822  | .0628 10103  |
| .3527  | .3454 32861  | .9384 43466  | .3600 58105  | .0628 46103  |
| .3528  | .3455 26703  | .9384 08918  | .3601 64391  | .0628 82114  |
| .3529  | .3456 20543  | .9383 74361  | .3602 70681  | .0629 18136  |
| 0.3530 | 0.3457 14378 | 0.9383 39794 | 0.3603 76975 | 1.0629 54168 |
| .3531  | .3458 08211  | .9383 05218  | .3604 83272  | .0629 90211  |
| .3532  | .3459 02039  | .9382 70632  | .3605 89573  | .0630 26265  |
| .3533  | .3459 95865  | .9382 36037  | .3606 95877  | .0630 62329  |
| .3534  | .3460 89687  | .9382 01433  | .3608 02186  | .0630 98404  |
| 0.3535 | 0.3461 83505 | 0.9381 66819 | 0.3609 08497 | 1.0631 34490 |
| .3536  | .3462 77320  | .9381 32196  | .3610 14812  | .0631 70586  |
| .3537  | .3463 71131  | .9380 97564  | .3611 21131  | .0632 06693  |
| .3538  | .3464 64939  | .9380 62922  | .3612 27454  | .0632 42810  |
| .3539  | .3465 58744  | .9380 28271  | .3613 33780  | .0632 78938  |
| 0.3540 | 0.3466 52545 | 0.9379 93610 | 0.3614 40110 | 1.0633 15077 |
| .3541  | .3467 46343  | .9379 58940  | .3615 46443  | .0633 51226  |
| .3542  | .3468 40137  | .9379 24261  | .3616 52780  | .0633 87386  |
| .3543  | .3469 33928  | .9378 89572  | .3617 59120  | .0634 23557  |
| .3544  | .3470 27715  | .9378 54874  | .3618 65465  | .0634 59738  |
| 0.3545 | 0.3471 21499 | 0.9378 20167 | 0.3619 71812 | 1.0634 95930 |
| .3546  | .3472 15279  | .9377 85450  | .3620 78164  | .0635 32132  |
| .3547  | .3473 09056  | .9377 50724  | .3621 84519  | .0635 68346  |
| .3548  | .3474 02829  | .9377 15988  | .3622 90877  | .0636 04569  |
| .3549  | .3474 96599  | .9376 81248  | .3623 97240  | .0636 40804  |

| x      | sin x        | cos x        | sin x        | cos x        |
|--------|--------------|--------------|--------------|--------------|
| 0.3550 | 0.3475 90365 | 0.9376 46489 | 0.3625 05606 | 1.0624 77029 |
| .3551  | .3476 84128  | .9376 11725  | .3626 09975  | .0625 13304  |
| .3552  | .3477 77888  | .9375 76952  | .3627 16349  | .0626 48997  |
| .3553  | .3478 71644  | .9375 42170  | .3628 25731  | .0627 48743  |
| .3554  | .3479 65396  | .9375 07378  | .3629 39105  | .0628 39135  |
| 0.3555 | 0.3480 59145 | 0.9374 72576 | 0.3630 56480 | 1.0629 39424 |
| .3556  | .3481 52891  | .9374 37766  | .3631 41877  | .0630 94742  |
| .3557  | .3482 46633  | .9374 02946  | .3632 49269  | .0631 71043  |
| .3558  | .3483 40371  | .9373 68117  | .3633 54663  | .0632 92292  |
| .3559  | .3484 34106  | .9373 33278  | .3634 61062  | .0633 69773  |
| 0.3560 | 0.3485 27838 | 0.9372 98430 | 0.3635 67464 | 1.0634 40084 |
| .3561  | .3486 21566  | .9372 63572  | .3636 73870  | .0635 76446  |
| .3562  | .3487 15290  | .9372 28705  | .3637 80279  | .0636 12819  |
| .3563  | .3488 09012  | .9371 93829  | .3638 86692  | .0637 49202  |
| .3564  | .3489 02729  | .9371 58944  | .3639 93109  | .0638 85596  |
| 0.3565 | 0.3489 96443 | 0.9371 24049 | 0.3640 99530 | 1.0642 22001 |
| .3566  | .3490 90154  | .9370 89144  | .3642 05954  | .0642 58416  |
| .3567  | .3491 83861  | .9370 54231  | .3643 12381  | .0642 94842  |
| .3568  | .3492 77565  | .9370 19308  | .3644 18813  | .0643 31279  |
| .3569  | .3493 71265  | .9369 84375  | .3645 25247  | .0643 67726  |
| 0.3570 | 0.3494 64962 | 0.9369 49433 | 0.3646 31686 | 1.0644 04184 |
| .3571  | .3495 58655  | .9369 14482  | .3647 38128  | .0644 40652  |
| .3572  | .3496 52345  | .9368 79522  | .3648 44574  | .0644 77131  |
| .3573  | .3497 46031  | .9368 44552  | .3649 51024  | .0645 13621  |
| .3574  | .3498 39714  | .9368 09572  | .3650 57477  | .0645 50122  |
| 0.3575 | 0.3499 33393 | 0.9367 74584 | 0.3651 63934 | 1.0645 86633 |
| .3576  | .3500 27069  | .9367 39586  | .3652 70394  | .0646 23154  |
| .3577  | .3501 20741  | .9367 04578  | .3653 76858  | .0646 59697  |
| .3578  | .3502 14409  | .9366 69561  | .3654 83326  | .0646 96230  |
| .3579  | .3503 08075  | .9366 34535  | .3655 89798  | .0647 32783  |
| 0.3580 | 0.3504 01736 | 0.9365 99500 | 0.3656 96273 | 1.0647 69348 |
| .3581  | .3504 95395  | .9365 64455  | .3658 02751  | .0648 05923  |
| .3582  | .3505 89049  | .9365 29401  | .3659 09234  | .0648 42508  |
| .3583  | .3506 82700  | .9364 94337  | .3660 15720  | .0648 79105  |
| .3584  | .3507 76348  | .9364 59264  | .3661 22210  | .0649 15711  |
| 0.3585 | 0.3508 69992 | 0.9364 24182 | 0.3662 28703 | 1.0649 52329 |
| .3586  | .3509 63633  | .9363 89090  | .3663 35200  | .0649 88957  |
| .3587  | .3510 57270  | .9363 53989  | .3664 41701  | .0650 25596  |
| .3588  | .3511 50904  | .9363 18879  | .3665 48205  | .0650 62246  |
| .3589  | .3512 44534  | .9362 83759  | .3666 54713  | .0650 98906  |
| 0.3590 | 0.3513 38160 | 0.9362 48630 | 0.3667 61225 | 1.0651 35576 |
| .3591  | .3514 31784  | .9362 13491  | .3668 67741  | .0651 72258  |
| .3592  | .3515 25403  | .9361 78344  | .3669 74260  | .0652 08950  |
| .3593  | .3516 19019  | .9361 43186  | .3670 80782  | .0652 45653  |
| .3594  | .3517 12632  | .9361 08020  | .3671 87309  | .0652 82366  |
| 0.3595 | 0.3518 06241 | 0.9360 72844 | 0.3672 93839 | 1.0653 19090 |
| .3596  | .3518 99846  | .9360 37658  | .3674 00373  | .0653 55825  |
| .3597  | .3519 93448  | .9360 02464  | .3675 06910  | .0653 92570  |
| .3598  | .3520 87047  | .9359 67260  | .3676 13451  | .0654 29326  |
| .3599  | .3521 80642  | .9359 32046  | .3677 19996  | .0654 66093  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.3600 | 0.3522 74233 | 0.9358 96824 | 0.3678 26544 | 1.0655 02870 |
| .3601  | .3523 67821  | .9358 61592  | .3679 33096  | .0655 39658  |
| .3602  | .3524 61406  | .9358 26350  | .3680 39652  | .0655 76457  |
| .3603  | .3525 54986  | .9357 91099  | .3681 46212  | .0656 13266  |
| .3604  | .3526 48564  | .9357 55839  | .3682 52775  | .0656 50086  |
| 0.3605 | 0.3527 42138 | 0.9357 20570 | 0.3683 59342 | 1.0656 86917 |
| .3606  | .3528 35708  | .9356 85291  | .3684 65912  | .0657 23758  |
| .3607  | .3529 29275  | .9356 50002  | .3685 72486  | .0657 60610  |
| .3608  | .3530 22838  | .9356 14705  | .3686 79064  | .0657 97473  |
| .3609  | .3531 16398  | .9355 79398  | .3687 85646  | .0658 34346  |
| 0.3610 | 0.3532 09954 | 0.9355 44082 | 0.3688 92231 | 1.0658 71230 |
| .3611  | .3533 03506  | .9355 08756  | .3689 98820  | .0659 08124  |
| .3612  | .3533 97056  | .9354 73421  | .3691 05413  | .0659 45029  |
| .3613  | .3534 90601  | .9354 38076  | .3692 12009  | .0659 81945  |
| .3614  | .3535 84143  | .9354 02723  | .3693 18609  | .0660 18872  |
| 0.3615 | 0.3536 77682 | 0.9353 87360 | 0.3694 25213 | 1.0660 55809 |
| .3616  | .3537 71217  | .9353 31987  | .3695 31820  | .0660 92757  |
| .3617  | .3538 64748  | .9352 96605  | .3696 38432  | .0661 29715  |
| .3618  | .3539 58276  | .9352 61214  | .3697 45046  | .0661 66685  |
| .3619  | .3540 51800  | .9352 25814  | .3698 51665  | .0662 03664  |
| 0.3620 | 0.3541 45321 | 0.9351 90404 | 0.3699 58287 | 1.0662 40655 |
| .3621  | .3542 38838  | .9351 54985  | .3700 64913  | .0662 77656  |
| .3622  | .3543 32352  | .9351 19556  | .3701 71543  | .0663 14668  |
| .3623  | .3544 25862  | .9350 84118  | .3702 78176  | .0663 51690  |
| .3624  | .3545 19369  | .9350 48671  | .3703 84813  | .0663 88724  |
| 0.3625 | 0.3546 12872 | 0.9350 13214 | 0.3704 91454 | 1.0664 25767 |
| .3626  | .3547 06372  | .9349 77748  | .3705 98098  | .0664 62822  |
| .3627  | .3547 99868  | .9349 42273  | .3707 04746  | .0664 99887  |
| .3628  | .3548 93360  | .9349 06788  | .3708 11398  | .0665 36963  |
| .3629  | .3549 86849  | .9348 71294  | .3709 18054  | .0665 74049  |
| 0.3630 | 0.3550 80334 | 0.9348 35791 | 0.3710 24713 | 1.0666 11146 |
| .3631  | .3551 73816  | .9348 00278  | .3711 31376  | .0666 48254  |
| .3632  | .3552 67294  | .9347 64756  | .3712 38043  | .0666 85373  |
| .3633  | .3553 60769  | .9347 29225  | .3713 44713  | .0667 22502  |
| .3634  | .3554 54240  | .9346 93684  | .3714 51387  | .0667 59642  |
| 0.3635 | 0.3555 47708 | 0.9346 58134 | 0.3715 58065 | 1.0667 96792 |
| .3636  | .3556 41172  | .9346 22575  | .3716 64746  | .0668 33953  |
| .3637  | .3557 34632  | .9345 87006  | .3717 71432  | .0668 71125  |
| .3638  | .3558 28089  | .9345 51428  | .3718 78121  | .0669 08307  |
| .3639  | .3559 21543  | .9345 15840  | .3719 84813  | .0669 45501  |
| 0.3640 | 0.3560 14992 | 0.9344 80243 | 0.3720 91510 | 1.0669 82704 |
| .3641  | .3561 08439  | .9344 44637  | .3721 98210  | .0670 19919  |
| .3642  | .3562 01881  | .9344 09022  | .3723 04914  | .0670 57144  |
| .3643  | .3562 95320  | .9343 73397  | .3724 11621  | .0670 94380  |
| .3644  | .3563 88756  | .9343 37763  | .3725 18333  | .0671 31626  |
| 0.3645 | 0.3564 82188 | 0.9343 02119 | 0.3726 25048 | 1.0671 68884 |
| .3646  | .3565 75616  | .9342 66466  | .3727 31766  | .0672 06151  |
| .3647  | .3566 69041  | .9342 30804  | .3728 38489  | .0672 43430  |
| .3648  | .3567 62463  | .9341 95132  | .3729 45215  | .0672 80719  |
| .3649  | .3568 55880  | .9341 59451  | .3730 51945  | .0673 18019  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.3650 | 0.3569 49294 | 0.9341 23761 | 0.3731 58679 | 1.0673 55330 |
| .3651  | .3570 42705  | .9340 88062  | .3732 65416  | .0673 92651  |
| .3652  | .3571 36112  | .9340 52353  | .3733 72157  | .0674 29983  |
| .3653  | .3572 29516  | .9340 16634  | .3734 78902  | .0674 67325  |
| .3654  | .3573 22915  | .9339 80907  | .3735 85651  | .0675 04678  |
| 0.3655 | 0.3574 16312 | 0.9339 45170 | 0.3736 92403 | 1.0675 42042 |
| .3656  | .3575 09704  | .9339 09423  | .3737 99159  | .0675 79417  |
| .3657  | .3576 03094  | .9338 73668  | .3739 05919  | .0676 16802  |
| .3658  | .3576 96479  | .9338 37903  | .3740 12682  | .0676 54198  |
| .3659  | .3577 89861  | .9338 02129  | .3741 19450  | .0676 91605  |
| 0.3660 | 0.3578 83240 | 0.9337 66345 | 0.3742 26221 | 1.0677 29022 |
| .3661  | .3579 76614  | .9337 30552  | .3743 32995  | .0677 66450  |
| .3662  | .3580 69986  | .9336 94750  | .3744 39774  | .0678 03889  |
| .3663  | .3581 63553  | .9336 58938  | .3745 46556  | .0678 41338  |
| .3664  | .3582 56718  | .9336 23117  | .3746 53342  | .0678 78798  |
| 0.3665 | 0.3583 50078 | 0.9335 87287 | 0.3747 60132 | 1.0679 16269 |
| .3666  | .3584 43435  | .9335 51447  | .3748 66926  | .0679 53750  |
| .3667  | .3585 36788  | .9335 15598  | .3749 73723  | .0679 91242  |
| .3668  | .3586 30138  | .9334 79740  | .3750 80524  | .0680 28745  |
| .3669  | .3587 23484  | .9334 43872  | .3751 87329  | .0680 66258  |
| 0.3670 | 0.3588 16827 | 0.9334 07995 | 0.3752 94137 | 1.0681 03782 |
| .3671  | .3589 10166  | .9333 72108  | .3754 00949  | .0681 41317  |
| .3672  | .3590 03501  | .9333 36213  | .3755 07765  | .0681 78862  |
| .3673  | .3590 96833  | .9333 00308  | .3756 14585  | .0682 16418  |
| .3674  | .3591 90161  | .9332 64393  | .3757 21409  | .0682 53985  |
| 0.3675 | 0.3592 83486 | 0.9332 28470 | 0.3758 28236 | 1.0682 91563 |
| .3676  | .3593 76807  | .9331 92537  | .3759 35067  | .0683 29151  |
| .3677  | .3594 70124  | .9331 56594  | .3760 41902  | .0683 66750  |
| .3678  | .3595 63438  | .9331 20643  | .3761 48740  | .0684 04359  |
| .3679  | .3596 56749  | .9330 84682  | .3762 55583  | .0684 41979  |
| 0.3680 | 0.3597 50055 | 0.9330 48711 | 0.3763 62429 | 1.0684 79610 |
| .3681  | .3598 43358  | .9330 12732  | .3764 69278  | .0685 17252  |
| .3682  | .3599 36658  | .9329 76743  | .3765 76132  | .0685 54904  |
| .3683  | .3600 29954  | .9329 40744  | .3766 82989  | .0685 92567  |
| .3684  | .3601 23246  | .9329 04737  | .3767 89851  | .0686 30241  |
| 0.3685 | 0.3602 16535 | 0.9328 68720 | 0.3768 96716 | 1.0686 67925 |
| .3686  | .3603 09820  | .9328 32693  | .3770 03584  | .0687 05620  |
| .3687  | .3604 03101  | .9327 96658  | .3771 10457  | .0687 43326  |
| .3688  | .3604 96379  | .9327 60613  | .3772 17333  | .0687 81042  |
| .3689  | .3605 89653  | .9327 24558  | .3773 24213  | .0688 18769  |
| 0.3690 | 0.3606 82924 | 0.9326 88495 | 0.3774 31097 | 1.0688 56507 |
| .3691  | .3607 76191  | .9326 52422  | .3775 37984  | .0688 94256  |
| .3692  | .3608 69454  | .9326 16340  | .3776 44875  | .0689 32015  |
| .3693  | .3609 62714  | .9325 80248  | .3777 51771  | .0689 69784  |
| .3694  | .3610 55971  | .9325 44147  | .3778 58669  | .0690 07565  |
| 0.3695 | 0.3611 49223 | 0.9325 08037 | 0.3779 65572 | 1.0690 45356 |
| .3696  | .3612 42472  | .9324 71917  | .3780 72478  | .0690 83158  |
| .3697  | .3613 35717  | .9324 35788  | .3781 79389  | .0691 20971  |
| .3698  | .3614 28959  | .9323 99650  | .3782 86303  | .0691 58794  |
| .3699  | .3615 22197  | .9323 63502  | .3783 93220  | .0691 96628  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.3700 | 0.3616 15432 | 0.9323 27346 | 0.3785 00142 | 1.0692 34473 |
| .3701  | .3617 08663  | .9322 91179  | .3786 07067  | .0692 72328  |
| .3702  | .3618 01890  | .9322 55004  | .3787 13996  | .0693 10194  |
| .3703  | .3618 95114  | .9322 18819  | .3788 20929  | .0693 48071  |
| .3704  | .3619 88334  | .9321 82625  | .3789 27866  | .0693 85958  |
| 0.3705 | 0.3620 81550 | 0.9321 46421 | 0.3790 34807 | 1.0694 23856 |
| .3706  | .3621 74763  | .9321 10209  | .3791 41751  | .0694 61765  |
| .3707  | .3622 67972  | .9320 73986  | .3792 48699  | .0694 99685  |
| .3708  | .3623 61178  | .9320 37755  | .3793 55651  | .0695 37615  |
| .3709  | .3624 54380  | .9320 01514  | .3794 62606  | .0695 75556  |
| 0.3710 | 0.3625 47578 | 0.9319 65264 | 0.3795 69566 | 1.0696 13507 |
| .3711  | .3626 40773  | .9319 29005  | .3796 76529  | .0696 51470  |
| .3712  | .3627 33964  | .9318 92736  | .3797 83496  | .0696 89443  |
| .3713  | .3628 27152  | .9318 56458  | .3798 90467  | .0697 27426  |
| .3714  | .3629 20335  | .9318 20170  | .3799 97442  | .0697 65421  |
| 0.3715 | 0.3630 13516 | 0.9317 83874 | 0.3801 04420 | 1.0698 03426 |
| .3716  | .3631 06692  | .9317 47568  | .3802 11402  | .0698 41442  |
| .3717  | .3631 99865  | .9317 11252  | .3803 18388  | .0698 79468  |
| .3718  | .3632 93034  | .9316 74928  | .3804 25378  | .0699 17505  |
| .3719  | .3633 86200  | .9316 38594  | .3805 32372  | .0699 55553  |
| 0.3720 | 0.3634 79362 | 0.9316 02251 | 0.3806 39369 | 1.0699 93612 |
| .3721  | .3635 72521  | .9315 65898  | .3807 46371  | .0700 31681  |
| .3722  | .3636 65675  | .9315 29536  | .3808 53376  | .0700 69761  |
| .3723  | .3637 58826  | .9314 93165  | .3809 60385  | .0701 07852  |
| .3724  | .3638 51974  | .9314 56784  | .3810 67397  | .0701 45953  |
| 0.3725 | 0.3639 45118 | 0.9314 20394 | 0.3811 74414 | 1.0701 84065 |
| .3726  | .3640 38258  | .9313 83995  | .3812 81434  | .0702 22188  |
| .3727  | .3641 31395  | .9313 47587  | .3813 88458  | .0702 60322  |
| .3728  | .3642 24528  | .9313 11169  | .3814 95486  | .0702 98466  |
| .3729  | .3643 17657  | .9312 74742  | .3816 02518  | .0703 36621  |
| 0.3730 | 0.3644 10783 | 0.9312 38305 | 0.3817 09553 | 1.0703 74786 |
| .3731  | .3645 03905  | .9312 01860  | .3818 16593  | .0704 12963  |
| .3732  | .3645 97023  | .9311 65405  | .3819 23636  | .0704 51150  |
| .3733  | .3646 90138  | .9311 28940  | .3820 30683  | .0704 89347  |
| .3734  | .3647 83249  | .9310 92467  | .3821 37734  | .0705 27556  |
| 0.3735 | 0.3648 76356 | 0.9310 55984 | 0.3822 44789 | 1.0705 65775 |
| .3736  | .3649 69460  | .9310 19491  | .3823 51847  | .0706 04005  |
| .3737  | .3650 62560  | .9309 82990  | .3824 58909  | .0706 42245  |
| .3738  | .3651 55656  | .9309 46479  | .3825 65976  | .0706 80497  |
| .3739  | .3652 48749  | .9309 09959  | .3826 73046  | .0707 18758  |
| 0.3740 | 0.3653 41838 | 0.9308 73429 | 0.3827 80119 | 1.0707 57031 |
| .3741  | .3654 34924  | .9308 36890  | .3828 87197  | .0707 95315  |
| .3742  | .3655 28006  | .9308 00342  | .3829 94278  | .0708 33609  |
| .3743  | .3656 21084  | .9307 63785  | .3831 01364  | .0708 71913  |
| .3744  | .3657 14159  | .9307 27218  | .3832 08453  | .0709 10229  |
| 0.3745 | 0.3658 07230 | 0.9306 90642 | 0.3833 15546 | 1.0709 48555 |
| .3746  | .3659 00297  | .9306 54056  | .3834 22642  | .0709 86892  |
| .3747  | .3659 93360  | .9306 17462  | .3835 29743  | .0710 25240  |
| .3748  | .3660 86420  | .9305 80858  | .3836 36848  | .0710 63598  |
| .3749  | .3661 79476  | .9305 44245  | .3837 43956  | .0711 01967  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.3750 | 0.3662 72529 | 0.9305 07622 | 0.3838 81068 | 1.0711 40347 |
| .3751  | .3663 65578  | .9304 70990  | .3839 58184  | .0711 78737  |
| .3752  | .3664 58623  | .9304 34349  | .3840 35304  | .0712 17138  |
| .3753  | .3665 51665  | .9303 97698  | .3841 72427  | .0712 55550  |
| .3754  | .3666 44703  | .9303 61038  | .3842 79555  | .0712 93973  |
| 0.3755 | 0.3667 37737 | 0.9303 24369 | 0.3843 86680 | 1.0713 32406 |
| .3756  | .3668 30768  | .9302 87691  | .3844 93821  | .0713 70850  |
| .3757  | .3669 23795  | .9302 51003  | .3846 00960  | .0714 09305  |
| .3758  | .3670 16818  | .9302 14306  | .3847 08103  | .0714 47770  |
| .3759  | .3671 09837  | .9301 77600  | .3848 15250  | .0714 86247  |
| 0.3760 | 0.3672 02853 | 0.9301 40884 | 0.3849 22400 | 1.0715 24733 |
| .3761  | .3672 95866  | .9301 04159  | .3850 29555  | .0715 63231  |
| .3762  | .3673 88874  | .9300 67425  | .3851 36713  | .0716 01739  |
| .3763  | .3674 81879  | .9300 30681  | .3852 43875  | .0716 40258  |
| .3764  | .3675 74880  | .9299 93929  | .3853 51041  | .0716 78788  |
| 0.3765 | 0.3676 67878 | 0.9299 57167 | 0.3854 58211 | 1.0717 17329 |
| .3766  | .3677 60872  | .9299 20395  | .3855 65385  | .0717 55880  |
| .3767  | .3678 53862  | .9298 83614  | .3856 72562  | .0717 94442  |
| .3768  | .3679 46849  | .9298 46824  | .3857 79743  | .0718 33014  |
| .3769  | .3680 39831  | .9298 10025  | .3858 86929  | .0718 71598  |
| 0.3770 | 0.3681 32811 | 0.9297 73216 | 0.3859 94118 | 1.0719 10192 |
| .3771  | .3682 25786  | .9297 36398  | .3861 01311  | .0719 48796  |
| .3772  | .3683 18758  | .9296 99571  | .3862 08507  | .0719 87412  |
| .3773  | .3684 11726  | .9296 62735  | .3863 15708  | .0720 26038  |
| .3774  | .3685 04690  | .9296 25889  | .3864 22913  | .0720 64675  |
| 0.3775 | 0.3685 97651 | 0.9295 89034 | 0.3865 30121 | 1.0721 03323 |
| .3776  | .3686 90608  | .9295 52169  | .3866 37333  | .0721 41981  |
| .3777  | .3687 83562  | .9295 15296  | .3867 44550  | .0721 80650  |
| .3778  | .3688 76511  | .9294 78413  | .3868 51770  | .0722 19330  |
| .3779  | .3689 69457  | .9294 41520  | .3869 58993  | .0722 58021  |
| 0.3780 | 0.3690 62400 | 0.9294 04619 | 0.3870 66221 | 1.0722 96722 |
| .3781  | .3691 55338  | .9293 67708  | .3871 73453  | .0723 35434  |
| .3782  | .3692 48273  | .9293 30788  | .3872 80688  | .0723 74156  |
| .3783  | .3693 41204  | .9292 93858  | .3873 87928  | .0724 12890  |
| .3784  | .3694 34132  | .9292 56919  | .3874 95171  | .0724 51634  |
| 0.3785 | 0.3695 27056 | 0.9292 19971 | 0.3876 02418 | 1.0724 90389 |
| .3786  | .3696 19976  | .9291 83014  | .3877 09669  | .0725 29155  |
| .3787  | .3697 12892  | .9291 46047  | .3878 16924  | .0725 67931  |
| .3788  | .3698 05805  | .9291 09071  | .3879 24182  | .0726 06718  |
| .3789  | .3698 98714  | .9290 72086  | .3880 31445  | .0726 45516  |
| 0.3790 | 0.3699 91619 | 0.9290 35092 | 0.3881 38712 | 1.0726 84324 |
| .3791  | .3700 84521  | .9289 98088  | .3882 45982  | .0727 23143  |
| .3792  | .3701 77419  | .9289 61075  | .3883 53256  | .0727 61973  |
| .3793  | .3702 70313  | .9289 24052  | .3884 60534  | .0728 00814  |
| .3794  | .3703 63204  | .9288 87021  | .3885 67816  | .0728 39666  |
| 0.3795 | 0.3704 56091 | 0.9288 49980 | 0.3886 75102 | 1.0728 78528 |
| .3796  | .3705 48974  | .9288 12929  | .3887 82392  | .0729 17401  |
| .3797  | .3706 41853  | .9287 75870  | .3888 89686  | .0729 56284  |
| .3798  | .3707 34729  | .9287 38801  | .3889 96983  | .0729 95178  |
| .3799  | .3708 27601  | .9287 01723  | .3891 04285  | .0730 34084  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.3800 | 0.3709 20469 | 0.9286 64636 | 0.3892 11590 | 1.0730 72999 |
| .3801  | .3710 13334  | .9286 27539  | .3893 18899  | .0731 11926  |
| .3802  | .3711 06195  | .9285 90433  | .3894 26212  | .0731 50863  |
| .3803  | .3711 99052  | .9285 53318  | .3895 33530  | .0731 89811  |
| .3804  | .3712 91906  | .9285 16193  | .3896 40850  | .0732 28770  |
| 0.3805 | 0.3713 84755 | 0.9284 79059 | 0.3897 48175 | 1.0732 67739 |
| .3806  | .3714 77601  | .9284 41916  | .3898 55504  | .0733 06719  |
| .3807  | .3715 70444  | .9284 04764  | .3899 62637  | .0733 45710  |
| .3808  | .3716 63282  | .9283 67602  | .3900 70173  | .0733 84712  |
| .3809  | .3717 56117  | .9283 30431  | .3901 77514  | .0734 23724  |
| 0.3810 | 0.3718 48948 | 0.9282 93251 | 0.3902 84858 | 1.0734 62748 |
| .3811  | .3719 41776  | .9282 56061  | .3903 92206  | .0735 01781  |
| .3812  | .3720 34600  | .9282 18862  | .3904 99558  | .0735 40826  |
| .3813  | .3721 27420  | .9281 81654  | .3906 06914  | .0735 79881  |
| .3814  | .3722 20236  | .9281 44437  | .3907 14274  | .0736 18947  |
| 0.3815 | 0.3723 13049 | 0.9281 07210 | 0.3908 21638 | 1.0736 58024 |
| .3816  | .3724 05857  | .9280 69974  | .3909 29006  | .0736 97112  |
| .3817  | .3724 98663  | .9280 32729  | .3910 36377  | .0737 36210  |
| .3818  | .3725 91464  | .9279 95475  | .3911 43753  | .0737 75319  |
| .3819  | .3726 84262  | .9279 58211  | .3912 51133  | .0738 14439  |
| 0.3820 | 0.3727 77056 | 0.9279 20938 | 0.3913 58516 | 1.0738 53569 |
| .3821  | .3728 69846  | .9278 83655  | .3914 65903  | .0738 92710  |
| .3822  | .3729 62632  | .9278 46364  | .3915 73295  | .0739 31862  |
| .3823  | .3730 55415  | .9278 09063  | .3916 80690  | .0739 71025  |
| .3824  | .3731 48194  | .9277 71753  | .3917 88089  | .0740 10198  |
| 0.3825 | 0.3732 40969 | 0.9277 34433 | 0.3918 95492 | 1.0740 49383 |
| .3826  | .3733 33741  | .9276 97105  | .3920 02899  | .0740 88578  |
| .3827  | .3734 26509  | .9276 59767  | .3921 10309  | .0741 27783  |
| .3828  | .3735 19273  | .9276 22419  | .3922 17724  | .0741 67000  |
| .3829  | .3736 12033  | .9275 85063  | .3923 25143  | .0742 06227  |
| 0.3830 | 0.3737 04790 | 0.9275 47697 | 0.3924 32565 | 1.0742 45465 |
| .3831  | .3737 97543  | .9275 10322  | .3925 39992  | .0742 84713  |
| .3832  | .3738 90292  | .9274 72937  | .3926 47422  | .0743 23973  |
| .3833  | .3739 83037  | .9274 35544  | .3927 54857  | .0743 63243  |
| .3834  | .3740 75779  | .9273 98141  | .3928 62295  | .0744 02524  |
| 0.3835 | 0.3741 68517 | 0.9273 60729 | 0.3929 69737 | 1.0744 41815 |
| .3836  | .3742 61251  | .9273 23307  | .3930 77183  | .0744 81118  |
| .3837  | .3743 53982  | .9272 85876  | .3931 84633  | .0745 20451  |
| .3838  | .3744 46708  | .9272 48436  | .3932 92087  | .0745 59755  |
| .3839  | .3745 39431  | .9272 10987  | .3933 99545  | .0745 99089  |
| 0.3840 | 0.3746 32151 | 0.9271 73528 | 0.3935 07007 | 1.0746 38434 |
| .3841  | .3747 24866  | .9271 36080  | .3936 14473  | .0746 77791  |
| .3842  | .3748 17578  | .9270 98583  | .3937 21943  | .0747 17157  |
| .3843  | .3749 10286  | .9270 61097  | .3938 29416  | .0747 56535  |
| .3844  | .3750 02990  | .9270 23601  | .3939 36894  | .0747 95923  |
| 0.3845 | 0.3750 95691 | 0.9269 86096 | 0.3940 44376 | 1.0748 35322 |
| .3846  | .3751 88387  | .9269 48582  | .3941 51861  | .0748 74732  |
| .3847  | .3752 81080  | .9269 11059  | .3942 59351  | .0749 14153  |
| .3848  | .3753 73770  | .9268 73526  | .3943 66844  | .0749 53584  |
| .3849  | .3754 66455  | .9268 35984  | .3944 74341  | .0749 93026  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 0.3850 | 0.3755 59137 | 0.9267 98433 | 0.3945 81843 | 1.0750 32479 |
| .3851  | .3756 51815  | .9267 60872  | .3946 89348  | .0750 71942  |
| .3852  | .3757 44489  | .9267 23302  | .3947 96857  | .0751 11417  |
| .3853  | .3758 37159  | .9266 85723  | .3949 04370  | .0751 50902  |
| .3854  | .3759 29826  | .9266 48135  | .3950 11887  | .0751 90398  |
| 0.3855 | 0.3760 22489 | 0.9266 10537 | 0.3951 19408 | 1.0752 29904 |
| .3856  | .3761 15148  | .9265 72930  | .3952 26933  | .0752 69421  |
| .3857  | .3762 07804  | .9265 35314  | .3953 34462  | .0753 08950  |
| .3858  | .3763 00455  | .9264 97689  | .3954 41995  | .0753 48488  |
| .3859  | .3763 93103  | .9264 60054  | .3955 49532  | .0753 88038  |
| 0.3860 | 0.3764 85747 | 0.9264 22410 | 0.3956 57073 | 1.0754 27598 |
| .3861  | .3765 78388  | .9263 84757  | .3957 64617  | .0754 67169  |
| .3862  | .3766 71024  | .9263 47095  | .3958 72166  | .0755 06751  |
| .3863  | .3767 63657  | .9263 09423  | .3959 79719  | .0755 46344  |
| .3864  | .3768 56286  | .9262 71742  | .3960 87275  | .0755 85947  |
| 0.3865 | 0.3769 48911 | 0.9262 34052 | 0.3961 94836 | 1.0756 25561 |
| .3866  | .3770 41533  | .9261 96352  | .3963 02400  | .0756 65186  |
| .3867  | .3771 34151  | .9261 58643  | .3964 09969  | .0757 04822  |
| .3868  | .3772 26765  | .9261 20925  | .3965 17541  | .0757 44468  |
| .3869  | .3773 19375  | .9260 83198  | .3966 25118  | .0757 84125  |
| 0.3870 | 0.3774 11981 | 0.9260 45461 | 0.3967 32698 | 1.0758 23793 |
| .3871  | .3775 04584  | .9260 07715  | .3968 40283  | .0758 63472  |
| .3872  | .3775 97183  | .9259 69960  | .3969 47871  | .0759 03161  |
| .3873  | .3776 89778  | .9259 32196  | .3970 55463  | .0759 42861  |
| .3874  | .3777 82369  | .9258 94422  | .3971 63059  | .0759 82572  |
| 0.3875 | 0.3778 74957 | 0.9258 56640 | 0.3972 70660 | 1.0760 22294 |
| .3876  | .3779 67541  | .9258 18847  | .3973 78264  | .0760 62026  |
| .3877  | .3780 60121  | .9257 81046  | .3974 85872  | .0761 01770  |
| .3878  | .3781 52697  | .9257 43235  | .3975 93484  | .0761 41524  |
| .3879  | .3782 45269  | .9257 05416  | .3977 01100  | .0761 81288  |
| 0.3880 | 0.3783 37838 | 0.9256 67586 | 0.3978 08721 | 1.0762 21064 |
| .3881  | .3784 30403  | .9256 29748  | .3979 16345  | .0762 60850  |
| .3882  | .3785 22964  | .9255 91900  | .3980 23973  | .0763 00647  |
| .3883  | .3786 15521  | .9255 54043  | .3981 31605  | .0763 40455  |
| .3884  | .3787 08075  | .9255 16177  | .3982 39241  | .0763 80273  |
| 0.3885 | 0.3788 00624 | 0.9254 78302 | 0.3983 46881 | 1.0764 20103 |
| .3886  | .3788 93170  | .9254 40417  | .3984 54525  | .0764 59943  |
| .3887  | .3789 85712  | .9254 02523  | .3985 62173  | .0764 99794  |
| .3888  | .3790 78251  | .9253 64620  | .3986 69825  | .0765 39655  |
| .3889  | .3791 70785  | .9253 26707  | .3987 77481  | .0765 79528  |
| 0.3890 | 0.3792 63316 | 0.9252 88786 | 0.3988 85141 | 1.0766 19411 |
| .3891  | .3793 55843  | .9252 50855  | .3989 92805  | .0766 59305  |
| .3892  | .3794 48366  | .9252 12915  | .3991 00473  | .0766 99209  |
| .3893  | .3795 40886  | .9251 74965  | .3992 08144  | .0767 39125  |
| .3894  | .3796 33401  | .9251 37006  | .3993 15820  | .0767 79051  |
| 0.3895 | 0.3797 25913 | 0.9250 99038 | 0.3994 23500 | 1.0768 18988 |
| .3896  | .3798 18421  | .9250 61061  | .3995 31184  | .0768 58936  |
| .3897  | .3799 10925  | .9250 23075  | .3996 38872  | .0768 98894  |
| .3898  | .3800 03426  | .9249 85079  | .3997 46564  | .0769 38863  |
| .3899  | .3800 95922  | .9249 47074  | .3998 54260  | .0769 78843  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.3900 | 0.3801 88415 | 0.9249 09060 | 0.3999 61960 | 1.0770 18834 |
| .3901  | .3802 80904  | .9248 71036  | .4000 69664  | .0770 58236  |
| .3902  | .3803 73389  | .9248 33004  | .4001 77371  | .0770 98848  |
| .3903  | .3804 65871  | .9247 34962  | .4002 85083  | .0771 38871  |
| .3904  | .3805 58348  | .9247 56911  | .4003 32799  | .0771 78905  |
| 0.3905 | 0.3806 50822 | 0.9247 18850 | 0.4005 00519 | 1.0772 18950 |
| .3906  | .3807 43292  | .9246 80780  | .4006 08243  | .0772 59005  |
| .3907  | .3808 35758  | .9246 42701  | .4007 15971  | .0772 99071  |
| .3908  | .3809 28221  | .9246 04613  | .4008 23703  | .0773 39148  |
| .3909  | .3810 20679  | .9245 66516  | .4009 31439  | .0773 79236  |
| 0.3910 | 0.3811 13134 | 0.9245 28409 | 0.4010 39179 | 1.0774 19335 |
| .3911  | .3812 05585  | .9244 90293  | .4011 46923  | .0774 59444  |
| .3912  | .3812 98032  | .9244 52168  | .4012 54671  | .0774 99564  |
| .3913  | .3813 90475  | .9244 14034  | .4013 62423  | .0775 39695  |
| .3914  | .3814 82915  | .9243 75990  | .4014 70179  | .0775 79837  |
| 0.3915 | 0.3815 75350 | 0.9243 37737 | 0.4015 77939 | 1.0776 19989 |
| .3916  | .3816 67782  | .9242 99575  | .4016 85703  | .0776 60152  |
| .3917  | .3817 60210  | .9242 61403  | .4017 93471  | .0777 00326  |
| .3918  | .3818 52635  | .9242 23223  | .4019 01243  | .0777 40511  |
| .3919  | .3819 45055  | .9241 35033  | .4020 09019  | .0777 80706  |
| 0.3920 | 0.3820 37472 | 0.9241 46834 | 0.4021 16799 | 1.0778 20913 |
| .3921  | .3821 29884  | .9241 08625  | .4022 24583  | .0778 61130  |
| .3922  | .3822 22293  | .9240 70408  | .4023 32371  | .0779 01358  |
| .3923  | .3823 14698  | .9240 32181  | .4024 40163  | .0779 41596  |
| .3924  | .3824 07100  | .9239 93945  | .4025 47959  | .0779 81846  |
| 0.3925 | 0.3824 99497 | 0.9239 55699 | 0.4026 55759 | 1.0780 22106 |
| .3926  | .3825 91891  | .9239 17445  | .4027 63564  | .0780 62377  |
| .3927  | .3826 84281  | .9238 79181  | .4028 71372  | .0781 02659  |
| .3928  | .3827 76667  | .9238 40908  | .4029 79184  | .0781 42951  |
| .3929  | .3828 69049  | .9238 02626  | .4030 87001  | .0781 83254  |
| 0.3930 | 0.3829 61427 | 0.9237 64334 | 0.4031 94821 | 1.0782 23568 |
| .3931  | .3830 53802  | .9237 26033  | .4033 02645  | .0782 63893  |
| .3932  | .3831 46173  | .9236 87723  | .4034 10474  | .0783 04229  |
| .3933  | .3832 38539  | .9236 49404  | .4035 18306  | .0783 44575  |
| .3934  | .3833 30902  | .9236 11076  | .4036 26143  | .0783 84933  |
| 0.3935 | 0.3834 23262 | 0.9235 72738 | 0.4037 33983 | 1.0784 25301 |
| .3936  | .3835 15617  | .9235 34391  | .4038 41828  | .0784 65679  |
| .3937  | .3836 07968  | .9234 96035  | .4039 49676  | .0785 06069  |
| .3938  | .3837 00316  | .9234 57670  | .4040 57529  | .0785 46469  |
| .3939  | .3837 92660  | .9234 19295  | .4041 65386  | .0785 86881  |
| 0.3940 | 0.3838 85000 | 0.9233 80911 | 0.4042 73246 | 1.0786 27302 |
| .3941  | .3839 77336  | .9233 42518  | .4043 81111  | .0786 67735  |
| .3942  | .3840 69668  | .9233 04116  | .4044 88980  | .0787 08179  |
| .3943  | .3841 61997  | .9232 65704  | .4045 96853  | .0787 48633  |
| .3944  | .3842 54322  | .9232 27283  | .4047 04729  | .0787 89098  |
| 0.3945 | 0.3843 46642 | 0.9231 88853 | 0.4048 12610 | 1.0788 29574 |
| .3946  | .3844 38959  | .9231 50414  | .4049 20495  | .0788 70061  |
| .3947  | .3845 31273  | .9231 11965  | .4050 28384  | .0789 10558  |
| .3948  | .3846 23582  | .9230 73508  | .4051 36278  | .0789 51066  |
| .3949  | .3847 15887  | .9230 35041  | .4052 44175  | .0789 91585  |

| x      | sin x        | cos x        | sinh         | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.3950 | 0.3848 08189 | 0.9229 96564 | 0.4053 32070 | 1.0790 32115 |
| .3951  | .3849 00487  | .9229 58079  | .4054 52981  | .0790 72656  |
| .3952  | .3840 92780  | .9229 19584  | .4055 67890  | .0791 13207  |
| .3953  | .3850 85070  | .9228 81080  | .4056 75804  | .0791 53769  |
| .3954  | .3851 77357  | .9228 42567  | .4057 83721  | .0791 94342  |
| 0.3955 | 0.3852 69639 | 0.9228 04046 | 0.4058 91643 | 1.0792 34926 |
| .3956  | .3853 61917  | .9227 65513  | .4059 99568  | .0792 75521  |
| .3957  | .3854 54192  | .9227 26973  | .4061 07492  | .0793 16126  |
| .3958  | .3855 46463  | .9226 88422  | .4062 15431  | .0793 56742  |
| .3959  | .3856 38730  | .9226 49863  | .4063 23369  | .0793 97369  |
| 0.3960 | 0.3857 30993 | 0.9226 11295 | 0.4064 31311 | 1.0794 38007 |
| .3961  | .3858 23252  | .9225 72717  | .4065 39257  | .0794 78655  |
| .3962  | .3859 15507  | .9225 34130  | .4066 47207  | .0795 19315  |
| .3963  | .3860 07759  | .9224 95534  | .4067 55161  | .0795 59985  |
| .3964  | .3861 00006  | .9224 56929  | .4068 63119  | .0796 00666  |
| 0.3965 | 0.3861 92250 | 0.9224 18314 | 0.4069 71081 | 1.0796 41357 |
| .3966  | .3862 84490  | .9223 79690  | .4070 79047  | .0796 82060  |
| .3967  | .3863 76726  | .9223 41057  | .4071 87017  | .0797 22773  |
| .3968  | .3864 68958  | .9223 02415  | .4072 94991  | .0797 63497  |
| .3969  | .3865 61187  | .9222 63763  | .4074 02970  | .0798 04232  |
| 0.3970 | 0.3866 53411 | 0.9222 25103 | 0.4075 10952 | 1.0798 44978 |
| .3971  | .3867 45632  | .9221 86433  | .4076 18939  | .0798 85734  |
| .3972  | .3868 37848  | .9221 47753  | .4077 26929  | .0799 26502  |
| .3973  | .3869 30061  | .9221 09065  | .4078 34924  | .0799 67280  |
| .3974  | .3870 22270  | .9220 70367  | .4079 42923  | .0800 08069  |
| 0.3975 | 0.3871 14475 | 0.9220 31661 | 0.4080 50926 | 1.0800 48868 |
| .3976  | .3872 06677  | .9219 92944  | .4081 58933  | .0800 89679  |
| .3977  | .3872 98874  | .9219 54219  | .4082 66944  | .0801 30500  |
| .3978  | .3873 91067  | .9219 15485  | .4083 74959  | .0801 71332  |
| .3979  | .3874 83257  | .9218 76741  | .4084 82978  | .0802 12175  |
| 0.3980 | 0.3875 75443 | 0.9218 37988 | 0.4085 91001 | 1.0802 53029 |
| .3981  | .3876 67625  | .9217 99226  | .4086 99028  | .0802 93893  |
| .3982  | .3877 59803  | .9217 60455  | .4088 07060  | .0803 34769  |
| .3983  | .3878 51977  | .9217 21674  | .4089 15095  | .0803 75655  |
| .3984  | .3879 44147  | .9216 82884  | .4090 23135  | .0804 16552  |
| 0.3985 | 0.3880 36313 | 0.9216 44085 | 0.4091 31179 | 1.0804 57459 |
| .3986  | .3881 28476  | .9216 05277  | .4092 39227  | .0804 98378  |
| .3987  | .3882 20634  | .9215 66459  | .4093 47278  | .0805 39307  |
| .3988  | .3883 12789  | .9215 27633  | .4094 55334  | .0805 80247  |
| .3989  | .3884 04940  | .9214 88797  | .4095 63394  | .0806 21198  |
| 0.3990 | 0.3884 97087 | 0.9214 49952 | 0.4096 71459 | 1.0806 62160 |
| .3991  | .3885 89230  | .9214 11097  | .4097 79527  | .0807 03133  |
| .3992  | .3886 81369  | .9213 72234  | .4098 87599  | .0807 44116  |
| .3993  | .3887 73504  | .9213 33361  | .4099 95676  | .0807 85110  |
| .3994  | .3888 65636  | .9212 94479  | .4101 03756  | .0808 26115  |
| 0.3995 | 0.3889 57763 | 0.9212 55588 | 0.4102 11841 | 1.0808 67131 |
| .3996  | .3890 49887  | .9212 16688  | .4103 19930  | .0809 08157  |
| .3997  | .3891 42006  | .9211 77778  | .4104 28023  | .0809 49195  |
| .3998  | .3892 34122  | .9211 38859  | .4105 36120  | .0809 90243  |
| .3999  | .3893 26234  | .9210 99931  | .4106 44221  | .0810 31302  |

| x      | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 0.4000 | 0.3894 18342 | 0.9210 60994 | 0.4107 52326 | 1.0810 72372 |
| .4001  | .3895 10446  | .9210 22048  | .4108 60435  | .0811 13452  |
| .4002  | .3896 02547  | .9209 83092  | .4109 68548  | .0811 54544  |
| .4003  | .3896 94643  | .9209 44127  | .4110 76666  | .0811 95646  |
| .4004  | .3897 86736  | .9209 05153  | .4111 84788  | .0812 36759  |
| 0.4005 | 0.3898 78824 | 0.9208 66170 | 0.4112 92913 | 1.0812 77883 |
| .4006  | .3899 70909  | .9208 27177  | .4114 01043  | .0813 19018  |
| .4007  | .3900 62990  | .9207 88176  | .4115 09177  | .0813 60163  |
| .4008  | .3901 55066  | .9207 49165  | .4116 17315  | .0814 01320  |
| .4009  | .3902 47139  | .9207 10145  | .4117 25457  | .0814 42487  |
| 0.4010 | 0.3903 39208 | 0.9206 71115 | 0.4118 33604 | 1.0814 83665 |
| .4011  | .3904 31274  | .9206 32077  | .4119 41754  | .0815 24854  |
| .4012  | .3905 23335  | .9205 93029  | .4120 49909  | .0815 66053  |
| .4013  | .3906 15392  | .9205 53972  | .4121 58067  | .0816 07264  |
| .4014  | .3907 07446  | .9205 14906  | .4122 66230  | .0816 48485  |
| 0.4015 | 0.3907 99495 | 0.9204 75831 | 0.4123 74397 | 1.0816 89717 |
| .4016  | .3908 91541  | .9204 36746  | .4124 82568  | .0817 30960  |
| .4017  | .3909 83583  | .9203 97652  | .4125 90743  | .0817 72213  |
| .4018  | .3910 75620  | .9203 58549  | .4126 98923  | .0818 13478  |
| .4019  | .3911 67654  | .9203 19437  | .4128 07106  | .0818 54753  |
| 0.4020 | 0.3912 59684 | 0.9202 80316 | 0.4129 15293 | 1.0818 96039 |
| .4021  | .3913 51710  | .9202 41185  | .4130 23485  | .0819 37336  |
| .4022  | .3914 43732  | .9202 02045  | .4131 31681  | .0819 78644  |
| .4023  | .3915 35751  | .9201 62896  | .4132 39881  | .0820 19962  |
| .4024  | .3916 27765  | .9201 23738  | .4133 48085  | .0820 61292  |
| 0.4025 | 0.3917 19775 | 0.9200 84571 | 0.4134 56293 | 1.0821 02632 |
| .4026  | .3918 11782  | .9200 45394  | .4135 64505  | .0821 43983  |
| .4027  | .3919 03785  | .9200 06208  | .4136 72722  | .0821 85345  |
| .4028  | .3919 95783  | .9199 67014  | .4137 80943  | .0822 26718  |
| .4029  | .3920 87778  | .9199 27809  | .4138 89167  | .0822 68101  |
| 0.4030 | 0.3921 79769 | 0.9198 88596 | 0.4139 97396 | 1.0823 09495 |
| .4031  | .3922 71756  | .9198 49373  | .4141 05629  | .0823 50901  |
| .4032  | .3923 63739  | .9198 10142  | .4142 13866  | .0823 92317  |
| .4033  | .3924 55718  | .9197 70901  | .4143 22108  | .0824 33743  |
| .4034  | .3925 47693  | .9197 31650  | .4144 30353  | .0824 75161  |
| 0.4035 | 0.3926 39664 | 0.9196 92391 | 0.4145 38603 | 1.0825 16629 |
| .4036  | .3927 31631  | .9196 53123  | .4146 46856  | .0825 58089  |
| .4037  | .3928 23595  | .9196 13845  | .4147 55114  | .0825 99559  |
| .4038  | .3929 15554  | .9195 74558  | .4148 63376  | .0826 41040  |
| .4039  | .3930 07510  | .9195 35262  | .4149 71643  | .0826 82532  |
| 0.4040 | 0.3930 99461 | 0.9194 95956 | 0.4150 79913 | 1.0827 24034 |
| .4041  | .3931 91409  | .9194 56642  | .4151 88187  | .0827 65548  |
| .4042  | .3932 83352  | .9194 17318  | .4152 96466  | .0828 07072  |
| .4043  | .3933 75292  | .9193 77985  | .4154 04749  | .0828 48607  |
| .4044  | .3934 67228  | .9193 38643  | .4155 13036  | .0828 90153  |
| 0.4045 | 0.3935 59160 | 0.9192 99292 | 0.4156 21327 | 1.0829 31709 |
| .4046  | .3936 51088  | .9192 59931  | .4157 29622  | .0829 73277  |
| .4047  | .3937 43012  | .9192 20561  | .4158 37921  | .0830 14855  |
| .4048  | .3938 34932  | .9191 81183  | .4159 46225  | .0830 56445  |
| .4049  | .3939 26848  | .9191 41794  | .4160 54533  | .0830 98045  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.4050 | 0.3940 18760 | 0.9191 02397 | 0.4161 02445 | 1.0861 02455 |
| .4051  | .3941 10669  | .9190 62991  | .4162 71161  | .0861 51277  |
| .4052  | .3942 02573  | .9190 23575  | .4163 73491  | .0862 32510  |
| .4053  | .3942 94473  | .9189 84150  | .4164 87805  | .0862 64553  |
| .4054  | .3943 86370  | .9189 44716  | .4165 96134  | .0863 06207  |
| 0.4055 | 0.3944 78262 | 0.9189 05273 | 0.4167 04460 | 1.0863 47872 |
| .4056  | .3945 70151  | .9188 65820  | .4168 13803  | .0863 89548  |
| .4057  | .3946 62035  | .9188 26359  | .4169 21144  | .0864 31235  |
| .4058  | .3947 53916  | .9187 86888  | .4170 29490  | .0864 72932  |
| .4059  | .3948 45793  | .9187 47408  | .4171 37839  | .0865 14641  |
| 0.4060 | 0.3949 37666 | 0.9187 07919 | 0.4172 46193 | 1.0865 56360 |
| .4061  | .3950 29534  | .9186 68421  | .4173 54550  | .0865 98090  |
| .4062  | .3951 21399  | .9186 28913  | .4174 62912  | .0866 39831  |
| .4063  | .3952 13260  | .9185 89396  | .4175 71278  | .0866 81583  |
| .4064  | .3953 05117  | .9185 49870  | .4176 79648  | .0867 23345  |
| 0.4065 | 0.3953 96970 | 0.9185 10335 | 0.4177 88023 | 1.0867 65118 |
| .4066  | .3954 88819  | .9184 70791  | .4178 96401  | .0868 06903  |
| .4067  | .3955 80664  | .9184 31237  | .4180 04784  | .0868 48698  |
| .4068  | .3956 72505  | .9183 91675  | .4181 13171  | .0868 90504  |
| .4069  | .3957 64343  | .9183 52103  | .4182 21562  | .0869 32320  |
| 0.4070 | 0.3958 56176 | 0.9183 12522 | 0.4183 29958 | 1.0869 74148 |
| .4071  | .3959 48005  | .9182 72932  | .4184 38357  | .0840 15936  |
| .4072  | .3960 39830  | .9182 33332  | .4185 46761  | .0840 57836  |
| .4073  | .3961 31652  | .9181 93724  | .4186 55169  | .0840 99696  |
| .4074  | .3962 23469  | .9181 54106  | .4187 63581  | .0841 41567  |
| 0.4075 | 0.3963 15283 | 0.9181 14479 | 0.4188 71997 | 1.0841 83448 |
| .4076  | .3964 07092  | .9180 74843  | .4189 80418  | .0842 25341  |
| .4077  | .3964 98898  | .9180 35198  | .4190 88842  | .0842 67245  |
| .4078  | .3965 90699  | .9179 95543  | .4191 97271  | .0843 09159  |
| .4079  | .3966 82497  | .9179 55880  | .4193 05704  | .0843 51084  |
| 0.4080 | 0.3967 74290 | 0.9179 16207 | 0.4194 14141 | 1.0843 93020 |
| .4081  | .3968 66080  | .9178 76525  | .4195 22583  | .0844 34967  |
| .4082  | .3969 57866  | .9178 36833  | .4196 31028  | .0844 76925  |
| .4083  | .3970 49647  | .9177 97133  | .4197 39478  | .0845 18893  |
| .4084  | .3971 41425  | .9177 57424  | .4198 47932  | .0845 60872  |
| 0.4085 | 0.3972 33199 | 0.9177 17705 | 0.4199 56390 | 1.0846 02803 |
| .4086  | .3973 24969  | .9176 77977  | .4200 64853  | .0846 44864  |
| .4087  | .3974 16734  | .9176 38240  | .4201 73319  | .0846 86874  |
| .4088  | .3975 08496  | .9175 98494  | .4202 81790  | .0847 28898  |
| .4089  | .3976 00254  | .9175 58738  | .4203 90265  | .0847 70932  |
| 0.4090 | 0.3976 92008 | 0.9175 18974 | 0.4204 98744 | 1.0848 12976 |
| .4091  | .3977 83758  | .9174 79200  | .4206 07227  | .0848 55032  |
| .4092  | .3978 75504  | .9174 39417  | .4207 15715  | .0848 97098  |
| .4093  | .3979 67246  | .9173 99625  | .4208 24207  | .0849 39175  |
| .4094  | .3980 58984  | .9173 59823  | .4209 32703  | .0849 81263  |
| 0.4095 | 0.3981 50718 | 0.9173 20013 | 0.4210 41203 | 1.0850 23361 |
| .4096  | .3982 42448  | .9172 80193  | .4211 49708  | .0850 65471  |
| .4097  | .3983 34174  | .9172 40364  | .4212 58216  | .0851 07591  |
| .4098  | .3984 25896  | .9172 00526  | .4213 66729  | .0851 49723  |
| .4099  | .3985 17614  | .9171 60679  | .4214 75246  | .0851 91865  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.4100 | 0.3986 09328 | 0.9171 20823 | 0.4215 83767 | 1.0852 34018 |
| .4101  | .3987 01038  | .9170 80957  | .4216 92293  | .0852 76181  |
| .4102  | .3987 92744  | .9170 41085  | .4218 00823  | .0853 18356  |
| .4103  | .3988 84446  | .9170 01199  | .4219 09357  | .0853 60542  |
| .4104  | .3989 76144  | .9169 61306  | .4220 17895  | .0854 02738  |
| 0.4105 | 0.3990 67839 | 0.9169 21404 | 0.4221 26437 | 1.0854 44945 |
| .4106  | .3991 59529  | .9168 81492  | .4222 34984  | .0854 87163  |
| .4107  | .3992 51215  | .9168 41572  | .4223 43535  | .0855 29392  |
| .4108  | .3993 42897  | .9168 01642  | .4224 52090  | .0855 71632  |
| .4109  | .3994 34575  | .9167 61703  | .4225 60646  | .0856 13883  |
| 0.4110 | 0.3995 26249 | 0.9167 21755 | 0.4226 69212 | 1.0856 56144 |
| .4111  | .3996 17920  | .9166 81798  | .4227 77780  | .0856 98416  |
| .4112  | .3997 09586  | .9166 41831  | .4228 86352  | .0857 40700  |
| .4113  | .3998 01248  | .9166 01866  | .4229 94928  | .0857 82994  |
| .4114  | .3998 92906  | .9165 61871  | .4231 03509  | .0858 25299  |
| 0.4115 | 0.3999 84560 | 0.9165 21877 | 0.4232 12093 | 1.0858 67614 |
| .4116  | .4000 76210  | .9164 81874  | .4233 20682  | .0859 09941  |
| .4117  | .4001 67857  | .9164 41862  | .4234 29275  | .0859 52279  |
| .4118  | .4002 59499  | .9164 01841  | .4235 37873  | .0859 94627  |
| .4119  | .4003 51157  | .9163 61810  | .4236 46474  | .0860 36986  |
| 0.4120 | 0.4004 42771 | 0.9163 21770 | 0.4237 55080 | 1.0860 79356 |
| .4121  | .4005 34401  | .9162 81722  | .4238 63690  | .0861 21737  |
| .4122  | .4006 26028  | .9162 41664  | .4239 72304  | .0861 64129  |
| .4123  | .4007 17650  | .9162 01596  | .4240 80923  | .0862 06532  |
| .4124  | .4008 09268  | .9161 61620  | .4241 89546  | .0862 48945  |
| 0.4125 | 0.4009 00882 | 0.9161 21435 | 0.4242 98173 | 1.0862 91369 |
| .4126  | .4009 92492  | .9160 81340  | .4244 06804  | .0863 33805  |
| .4127  | .4010 84098  | .9160 41236  | .4245 15440  | .0863 76251  |
| .4128  | .4011 75700  | .9160 01123  | .4246 24079  | .0864 18708  |
| .4129  | .4012 67298  | .9159 61001  | .4247 32723  | .0864 61176  |
| 0.4130 | 0.4013 58893 | 0.9159 20870 | 0.4248 41372 | 1.0865 03654 |
| .4131  | .4014 50483  | .9158 80729  | .4249 50024  | .0865 46144  |
| .4132  | .4015 42069  | .9158 40579  | .4250 58681  | .0865 88644  |
| .4133  | .4016 33651  | .9158 00421  | .4251 67342  | .0866 31156  |
| .4134  | .4017 25229  | .9157 60253  | .4252 76007  | .0866 73678  |
| 0.4135 | 0.4018 16803 | 0.9157 20076 | 0.4253 84677 | 1.0867 16211 |
| .4136  | .4019 08373  | .9156 79889  | .4254 93350  | .0867 58755  |
| .4137  | .4019 99959  | .9156 39694  | .4256 02028  | .0868 01310  |
| .4138  | .4020 91501  | .9155 99489  | .4257 10711  | .0868 43875  |
| .4139  | .4021 83059  | .9155 59276  | .4258 19397  | .0868 86452  |
| 0.4140 | 0.4022 74613 | 0.9155 19053 | 0.4259 28088 | 1.0869 29039 |
| .4141  | .4023 66163  | .9154 78821  | .4260 36783  | .0869 71637  |
| .4142  | .4024 57708  | .9154 38580  | .4261 45482  | .0870 14246  |
| .4143  | .4025 49250  | .9153 98329  | .4262 54186  | .0870 56866  |
| .4144  | .4026 40788  | .9153 58070  | .4263 62894  | .0870 99497  |
| 0.4145 | 0.4027 32322 | 0.9153 17801 | 0.4264 71606 | 1.0871 42139 |
| .4146  | .4028 23852  | .9152 77523  | .4265 80322  | .0871 84792  |
| .4147  | .4029 15377  | .9152 37236  | .4266 89043  | .0872 27455  |
| .4148  | .4030 06899  | .9151 96940  | .4267 97767  | .0872 70129  |
| .4149  | .4030 98417  | .9151 56635  | .4269 06497  | .0873 12815  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.4150 | 0.4031 89930 | 0.9151 16320 | 0.4270 15230 | 1.0875 85511 |
| .4151  | .4032 81440  | .9150 75997  | .4271 23998  | .0875 98218  |
| .4152  | .4033 72946  | .9150 35684  | .4272 32710  | .0874 40935  |
| .4153  | .4034 64447  | .9149 95322  | .4273 41456  | .0874 83604  |
| .4154  | .4035 55945  | .9149 54971  | .4274 50203  | .0875 26404  |
| 0.4155 | 0.4036 47438 | 0.9149 14611 | 0.4275 58961 | 1.0875 69154 |
| .4156  | .4037 38928  | .9148 74242  | .4276 67720  | .0876 11916  |
| .4157  | .4038 30413  | .9148 33863  | .4277 76484  | .0876 54688  |
| .4158  | .4039 21894  | .9147 93473  | .4278 85251  | .0876 97471  |
| .4159  | .4040 13372  | .9147 53079  | .4279 94025  | .0877 40265  |
| 0.4160 | 0.4041 04845 | 0.9147 12673 | 0.4281 02799 | 1.0877 83070 |
| .4161  | .4041 96314  | .9146 72258  | .4282 11580  | .0878 25885  |
| .4162  | .4042 87779  | .9146 31834  | .4283 20364  | .0878 68712  |
| .4163  | .4043 79241  | .9145 91400  | .4284 29153  | .0879 11549  |
| .4164  | .4044 70698  | .9145 50958  | .4285 37947  | .0879 54398  |
| 0.4165 | 0.4045 62151 | 0.9145 10506 | 0.4286 46744 | 1.0879 97257 |
| .4166  | .4046 53600  | .9144 70046  | .4287 55546  | .0880 40127  |
| .4167  | .4047 45045  | .9144 29576  | .4288 64352  | .0880 83008  |
| .4168  | .4048 36486  | .9143 89097  | .4289 73163  | .0881 25900  |
| .4169  | .4049 27925  | .9143 48608  | .4290 81977  | .0881 68803  |
| 0.4170 | 0.4050 19355 | 0.9143 88111 | 0.4291 90796 | 1.0882 11716 |
| .4171  | .4051 10784  | .9142 47604  | .4292 99620  | .0882 54641  |
| .4172  | .4052 02209  | .9142 27089  | .4294 08447  | .0882 97576  |
| .4173  | .4052 93630  | .9141 86564  | .4295 17279  | .0883 40523  |
| .4174  | .4053 85046  | .9141 46030  | .4296 26116  | .0883 83480  |
| 0.4175 | 0.4054 76459 | 0.9141 05487 | 0.4297 34956 | 1.0884 26448 |
| .4176  | .4055 67867  | .9140 64935  | .4298 43801  | .0884 69427  |
| .4177  | .4056 59272  | .9140 24373  | .4299 52650  | .0885 12417  |
| .4178  | .4057 50672  | .9139 83803  | .4300 61503  | .0885 55417  |
| .4179  | .4058 42069  | .9139 43223  | .4301 70361  | .0885 98429  |
| 0.4180 | 0.4059 33461 | 0.9139 02634 | 0.4302 79223 | 1.0886 41451 |
| .4181  | .4060 24849  | .9138 62037  | .4303 88089  | .0886 84485  |
| .4182  | .4061 16233  | .9138 21430  | .4304 96960  | .0887 27529  |
| .4183  | .4062 07613  | .9137 80813  | .4306 05835  | .0887 70584  |
| .4184  | .4062 98989  | .9137 40188  | .4307 14714  | .0888 13650  |
| 0.4185 | 0.4063 90361 | 0.9136 99554 | 0.4308 23598 | 1.0888 56727 |
| .4186  | .4064 81729  | .9136 58910  | .4309 32485  | .0888 99815  |
| .4187  | .4065 73093  | .9136 18257  | .4310 41377  | .0889 42914  |
| .4188  | .4066 64453  | .9135 77595  | .4311 50274  | .0889 86023  |
| .4189  | .4067 55809  | .9135 36924  | .4312 59175  | .0890 29144  |
| 0.4190 | 0.4068 47160 | 0.9134 96244 | 0.4313 68080 | 1.0890 72275 |
| .4191  | .4069 38508  | .9134 55555  | .4314 76989  | .0891 15417  |
| .4192  | .4070 29852  | .9134 14856  | .4315 85903  | .0891 58570  |
| .4193  | .4071 21191  | .9133 74149  | .4316 94821  | .0892 01734  |
| .4194  | .4072 12526  | .9133 33432  | .4318 03743  | .0892 44909  |
| 0.4195 | 0.4073 03858 | 0.9132 92706 | 0.4319 12670 | 1.0892 88095 |
| .4196  | .4073 95185  | .9132 51971  | .4320 21601  | .0893 31292  |
| .4197  | .4074 86508  | .9132 11227  | .4321 30536  | .0893 74500  |
| .4198  | .4075 77827  | .9131 70474  | .4322 39476  | .0894 17718  |
| .4199  | .4076 69142  | .9131 29712  | .4323 48420  | .0894 60947  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.4200 | 0.4077 60453 | 0.9130 88940 | 0.4324 57368 | 1.0895 04188 |
| .4201  | .4078 51760  | .9130 48160  | .4325 66320  | .0895 47439  |
| .4202  | .4079 43063  | .9130 07370  | .4326 75277  | .0895 90701  |
| .4203  | .4080 34361  | .9129 66571  | .4327 84239  | .0896 33974  |
| .4204  | .4081 25656  | .9129 25763  | .4328 93204  | .0896 77258  |
| 0.4205 | 0.4082 16947 | 0.9128 84946 | 0.4330 02174 | 1.0897 20553 |
| .4206  | .4083 08233  | .9128 44120  | .4331 11148  | .0897 63858  |
| .4207  | .4083 99515  | .9128 03284  | .4332 20127  | .0898 07175  |
| .4208  | .4084 90794  | .9127 62440  | .4333 29110  | .0898 50502  |
| .4209  | .4085 82068  | .9127 21586  | .4334 38097  | .0898 93841  |
| 0.4210 | 0.4086 73338 | 0.9126 80723 | 0.4335 47088 | 1.0899 37150 |
| .4211  | .4087 64604  | .9126 39851  | .4336 56084  | .0899 80550  |
| .4212  | .4088 55866  | .9125 98970  | .4337 65085  | .0900 23921  |
| .4213  | .4089 47124  | .9125 58080  | .4338 74089  | .0900 67303  |
| .4214  | .4090 38378  | .9125 17181  | .4339 83098  | .0901 10696  |
| 0.4215 | 0.4091 29627 | 0.9124 76273 | 0.4340 92111 | 1.0901 54100 |
| .4216  | .4092 20873  | .9124 35355  | .4342 01129  | .0901 97514  |
| .4217  | .4093 12114  | .9123 94428  | .4343 10151  | .0902 40940  |
| .4218  | .4094 03352  | .9123 53493  | .4344 19177  | .0902 84376  |
| .4219  | .4094 94585  | .9123 12548  | .4345 28208  | .0903 27824  |
| 0.4220 | 0.4095 85814 | 0.9122 71594 | 0.4346 37243 | 1.0903 71282 |
| .4221  | .4096 77039  | .9122 30631  | .4347 46282  | .0904 14751  |
| .4222  | .4097 68260  | .9121 89658  | .4348 55326  | .0904 58231  |
| .4223  | .4098 59477  | .9121 48677  | .4349 64374  | .0905 01722  |
| .4224  | .4099 50690  | .9121 07686  | .4350 73426  | .0905 45224  |
| 0.4225 | 0.4100 41899 | 0.9120 66687 | 0.4351 82483 | 1.0905 88737 |
| .4226  | .4101 33103  | .9120 25678  | .4352 91544  | .0906 32261  |
| .4227  | .4102 24304  | .9119 84660  | .4354 00609  | .0906 75795  |
| .4228  | .4103 15500  | .9119 43633  | .4355 09679  | .0907 19341  |
| .4229  | .4104 06693  | .9119 02597  | .4356 18753  | .0907 62897  |
| 0.4230 | 0.4104 97881 | 0.9118 61552 | 0.4357 27831 | 1.0908 06465 |
| .4231  | .4105 89065  | .9118 20498  | .4358 36914  | .0908 50043  |
| .4232  | .4106 80245  | .9117 79434  | .4359 46001  | .0908 93632  |
| .4233  | .4107 71421  | .9117 38361  | .4360 55093  | .0909 37232  |
| .4234  | .4108 62593  | .9116 97280  | .4361 64189  | .0909 80843  |
| 0.4235 | 0.4109 53760 | 0.9116 56189 | 0.4362 73289 | 1.0910 24465 |
| .4236  | .4110 44924  | .9116 15089  | .4363 82394  | .0910 68098  |
| .4237  | .4111 36083  | .9115 73980  | .4364 91503  | .0911 11741  |
| .4238  | .4112 27239  | .9115 32862  | .4366 00616  | .0911 55396  |
| .4239  | .4113 18390  | .9114 91735  | .4367 09734  | .0911 99061  |
| 0.4240 | 0.4114 09537 | 0.9114 50598 | 0.4368 18856 | 1.0912 42738 |
| .4241  | .4115 00680  | .9114 09453  | .4369 27982  | .0912 86425  |
| .4242  | .4115 91819  | .9113 68298  | .4370 37113  | .0913 30123  |
| .4243  | .4116 82954  | .9113 27134  | .4371 46248  | .0913 73833  |
| .4244  | .4117 74084  | .9112 85961  | .4372 55388  | .0914 17553  |
| 0.4245 | 0.4118 65211 | 0.9112 44779 | 0.4373 64532 | 1.0914 61284 |
| .4246  | .4119 56333  | .9112 03588  | .4374 73680  | .0915 05026  |
| .4247  | .4120 47452  | .9111 62388  | .4375 82833  | .0915 48778  |
| .4248  | .4121 38566  | .9111 21179  | .4376 91990  | .0915 92542  |
| .4249  | .4122 29676  | .9110 79960  | .4378 01151  | .0916 36317  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.4250 | 0.4123 20782 | 0.9110 38733 | 0.4379 10317 | 1.0916 80102 |
| .4251  | .4124 11884  | .9109 97496  | .4380 19487  | .0917 23899  |
| .4252  | .4125 02981  | .9109 56251  | .4381 28662  | .0917 67706  |
| .4253  | .4125 94075  | .9109 14996  | .4382 37841  | .0918 11525  |
| .4254  | .4126 85164  | .9108 73732  | .4383 47024  | .0918 55354  |
| 0.4255 | 0.4127 76250 | 0.9108 32459 | 0.4384 56212 | 1.0919 99194 |
| .4256  | .4128 67331  | .9107 91177  | .4385 65404  | .0919 43045  |
| .4257  | .4129 58408  | .9107 49885  | .4386 74601  | .0919 86907  |
| .4258  | .4130 49481  | .9107 08585  | .4387 83802  | .0920 30780  |
| .4259  | .4131 40550  | .9106 67275  | .4388 93007  | .0920 74664  |
| 0.4260 | 0.4132 31614 | 0.9106 25957 | 0.4390 02217 | 1.0921 18559 |
| .4261  | .4133 22675  | .9105 84629  | .4391 11431  | .0921 62464  |
| .4262  | .4134 13731  | .9105 43292  | .4392 20649  | .0922 06381  |
| .4263  | .4135 04783  | .9105 01946  | .4393 29872  | .0922 50308  |
| .4264  | .4135 95831  | .9104 60591  | .4394 39099  | .0922 94247  |
| 0.4265 | 0.4136 86875 | 0.9104 19227 | 0.4395 48331 | 1.0923 38196 |
| .4266  | .4137 77915  | .9103 77854  | .4396 57567  | .0923 82157  |
| .4267  | .4138 68951  | .9103 36472  | .4397 66807  | .0924 26128  |
| .4268  | .4139 59983  | .9102 95080  | .4398 76052  | .0924 70110  |
| .4269  | .4140 51010  | .9102 53680  | .4399 85301  | .0925 14103  |
| 0.4270 | 0.4141 42033 | 0.9102 12270 | 0.4400 94555 | 1.0925 58107 |
| .4271  | .4142 33053  | .9101 70851  | .4402 03813  | .0926 02122  |
| .4272  | .4143 24068  | .9101 29423  | .4403 13075  | .0926 46148  |
| .4273  | .4144 15078  | .9100 87986  | .4404 22342  | .0926 90185  |
| .4274  | .4145 06085  | .9100 46540  | .4405 31613  | .0927 34232  |
| 0.4275 | 0.4145 97088 | 0.9100 05085 | 0.4406 40889 | 1.0927 78291 |
| .4276  | .4146 88086  | .9099 63621  | .4407 50169  | .0928 22360  |
| .4277  | .4147 79080  | .9099 22147  | .4408 59453  | .0928 66441  |
| .4278  | .4148 70071  | .9098 80665  | .4409 68742  | .0929 10532  |
| .4279  | .4149 61057  | .9098 39173  | .4410 78035  | .0929 54635  |
| 0.4280 | 0.4150 52038 | 0.9097 97673 | 0.4411 87333 | 1.0929 98748 |
| .4281  | .4151 43016  | .9097 56163  | .4412 96635  | .0930 42872  |
| .4282  | .4152 33990  | .9097 14644  | .4414 05942  | .0930 87007  |
| .4283  | .4153 24959  | .9096 73116  | .4415 15253  | .0931 31153  |
| .4284  | .4154 15924  | .9096 31579  | .4416 24568  | .0931 75310  |
| 0.4285 | 0.4155 06885 | 0.9095 90033 | 0.4417 33888 | 1.0932 19478 |
| .4286  | .4155 97842  | .9095 48478  | .4418 43212  | .0932 63657  |
| .4287  | .4156 88795  | .9095 06913  | .4419 52540  | .0933 07847  |
| .4288  | .4157 79744  | .9094 65340  | .4420 61873  | .0933 52048  |
| .4289  | .4158 70688  | .9094 23758  | .4421 71211  | .0933 96259  |
| 0.4290 | 0.4159 61628 | 0.9093 82166 | 0.4422 80553 | 1.0934 40482 |
| .4291  | .4160 52565  | .9093 40565  | .4423 89899  | .0934 84715  |
| .4292  | .4161 43497  | .9092 98955  | .4424 99250  | .0935 28960  |
| .4293  | .4162 34424  | .9092 57337  | .4426 08605  | .0935 73215  |
| .4294  | .4163 25348  | .9092 15709  | .4427 17964  | .0936 17481  |
| 0.4295 | 0.4164 16267 | 0.9091 74071 | 0.4428 27328 | 1.0936 61759 |
| .4296  | .4165 07183  | .9091 32425  | .4429 36697  | .0937 06047  |
| .4297  | .4165 98094  | .9090 90770  | .4430 46069  | .0937 50346  |
| .4298  | .4166 89001  | .9090 49106  | .4431 55447  | .0937 94656  |
| .4299  | .4167 79904  | .9090 07432  | .4432 64828  | .0938 38977  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.4300 | 0.4168 70802 | 0.9089 65750 | 0.4433 74214 | 1.0938 83309 |
| .4301  | .4169 61697  | .9089 24058  | .4434 83605  | .0939 27652  |
| .4302  | .4170 52587  | .9088 82357  | .4435 93000  | .0939 72006  |
| .4303  | .4171 43473  | .9088 40648  | .4437 02399  | .0940 16371  |
| .4304  | .4172 34355  | .9087 98929  | .4438 11803  | .0940 60746  |
| 0.4305 | 0.4173 25233 | 0.9087 57201 | 0.4439 21212 | 1.0941 05133 |
| .4306  | .4174 16107  | .9087 15464  | .4440 30624  | .0941 49531  |
| .4307  | .4175 06976  | .9086 73717  | .4441 40041  | .0941 93939  |
| .4308  | .4175 97842  | .9086 31962  | .4442 49463  | .0942 38359  |
| .4309  | .4176 88703  | .9085 90198  | .4443 58889  | .0942 82789  |
| 0.4310 | 0.4177 79560 | 0.9085 48424 | 0.4444 68320 | 1.0943 27230 |
| .4311  | .4178 70412  | .9085 06642  | .4445 77755  | .0943 71683  |
| .4312  | .4179 61261  | .9084 64850  | .4446 87194  | .0944 16146  |
| .4313  | .4180 52105  | .9084 23050  | .4447 96638  | .0944 60620  |
| .4314  | .4181 42946  | .9083 81240  | .4449 06086  | .0945 05105  |
| 0.4315 | 0.4182 33782 | 0.9083 39421 | 0.4450 15539 | 1.0945 49601 |
| .4316  | .4183 24613  | .9082 97593  | .4451 24996  | .0945 94108  |
| .4317  | .4184 15441  | .9082 55756  | .4452 34458  | .0946 38626  |
| .4318  | .4185 06265  | .9082 13910  | .4453 43924  | .0946 83155  |
| .4319  | .4185 97084  | .9081 72055  | .4454 53394  | .0947 27695  |
| 0.4320 | 0.4186 87899 | 0.9081 30191 | 0.4455 62869 | 1.0947 72246 |
| .4321  | .4187 78710  | .9080 88317  | .4456 72349  | .0948 16808  |
| .4322  | .4188 69517  | .9080 46435  | .4457 81833  | .0948 61380  |
| .4323  | .4189 60319  | .9080 04543  | .4458 91321  | .0949 05964  |
| .4324  | .4190 51118  | .9079 62643  | .4460 00814  | .0949 50559  |
| 0.4325 | 0.4191 41912 | 0.9079 20733 | 0.4461 10311 | 1.0949 95164 |
| .4326  | .4192 32702  | .9078 78815  | .4462 19813  | .0950 39781  |
| .4327  | .4193 23487  | .9078 36887  | .4463 29319  | .0950 84408  |
| .4328  | .4194 14269  | .9077 94950  | .4464 38830  | .0951 29047  |
| .4329  | .4195 05046  | .9077 53004  | .4465 48345  | .0951 73696  |
| 0.4330 | 0.4195 95820 | 0.9077 11049 | 0.4466 57864 | 1.0952 18356 |
| .4331  | .4196 86589  | .9076 69085  | .4467 67389  | .0952 63028  |
| .4332  | .4197 77353  | .9076 27111  | .4468 76917  | .0953 07710  |
| .4333  | .4198 68114  | .9075 85129  | .4469 86450  | .0953 52403  |
| .4334  | .4199 58871  | .9075 43138  | .4470 95988  | .0953 97107  |
| 0.4335 | 0.4200 49623 | 0.9075 01137 | 0.4472 05529 | 1.0954 41822 |
| .4336  | .4201 40371  | .9074 59128  | .4473 15076  | .0954 86548  |
| .4337  | .4202 31115  | .9074 17109  | .4474 24627  | .0955 31285  |
| .4338  | .4203 21854  | .9073 75082  | .4475 34182  | .0955 76033  |
| .4339  | .4204 12590  | .9073 33045  | .4476 43742  | .0956 20792  |
| 0.4340 | 0.4205 03321 | 0.9072 90999 | 0.4477 53306 | 1.0956 65562 |
| .4341  | .4205 94048  | .9072 48944  | .4478 62875  | .0957 10343  |
| .4342  | .4206 84771  | .9072 06880  | .4479 72448  | .0957 55134  |
| .4343  | .4207 75489  | .9071 64807  | .4480 82026  | .0957 99937  |
| .4344  | .4208 66204  | .9071 22725  | .4481 91608  | .0958 44751  |
| 0.4345 | 0.4209 56914 | 0.9070 80634 | 0.4483 01195 | 1.0958 89575 |
| .4346  | .4210 47620  | .9070 38534  | .4484 10786  | .0959 34411  |
| .4347  | .4211 38321  | .9069 96425  | .4485 20382  | .0959 79258  |
| .4348  | .4212 29019  | .9069 54306  | .4486 29982  | .0960 24115  |
| .4349  | .4213 19712  | .9069 12179  | .4487 39587  | .0960 68984  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.4350 | 0.4214 10401 | 0.9068 70042 | 0.4483 43186 | 1.0061 13863 |
| .4351  | .4215 01086  | .9068 27897  | .4484 53210  | .0061 58753  |
| .4352  | .4215 91767  | .9067 85742  | .4480 68473  | .0062 03655  |
| .4353  | .4216 82443  | .9067 43578  | .4481 78890  | .0062 48567  |
| .4354  | .4217 73116  | .9067 01406  | .4482 87677  | .0062 93490  |
| 0.4355 | 0.4218 63784 | 0.9066 59224 | 0.4483 97309 | 1.0063 38425 |
| .4356  | .4219 54448  | .9066 17033  | .4485 06945  | .0063 83370  |
| .4357  | .4220 45107  | .9065 74833  | .4486 16886  | .0064 28326  |
| .4358  | .4221 35762  | .9065 32624  | .4487 26831  | .0064 73293  |
| .4359  | .4222 26414  | .9064 90406  | .4488 36880  | .0065 18271  |
| 0.4360 | 0.4223 17061 | 0.9064 48179 | 0.4489 46534 | 1.0065 63260 |
| .4361  | .4224 07703  | .9064 05942  | .4500 55193  | .0066 08260  |
| .4362  | .4224 98342  | .9063 63697  | .4501 64856  | .0066 53271  |
| .4363  | .4225 88976  | .9063 21443  | .4502 74524  | .0066 98293  |
| .4364  | .4226 79606  | .9062 79179  | .4503 84196  | .0067 43326  |
| 0.4365 | 0.4227 70232 | 0.9062 36907 | 0.4504 93872 | 1.0067 88370 |
| .4366  | .4228 60853  | .9061 94625  | .4506 03553  | .0068 33425  |
| .4367  | .4229 51471  | .9061 52335  | .4507 13239  | .0068 78491  |
| .4368  | .4230 42084  | .9061 10035  | .4508 22920  | .0069 23568  |
| .4369  | .4231 32693  | .9060 67726  | .4509 32624  | .0069 68665  |
| 0.4370 | 0.4232 23297 | 0.9060 25408 | 0.4510 42323 | 1.0070 13754 |
| .4371  | .4233 13898  | .9059 83081  | .4511 52026  | .0070 58864  |
| .4372  | .4234 04494  | .9059 40746  | .4512 61735  | .0071 03985  |
| .4373  | .4234 95086  | .9058 98401  | .4513 71447  | .0071 49116  |
| .4374  | .4235 85674  | .9058 56047  | .4514 81164  | .0071 94259  |
| 0.4375 | 0.4236 76257 | 0.9058 13683 | 0.4515 90886 | 1.0072 39413 |
| .4376  | .4237 66836  | .9057 71311  | .4517 00612  | .0072 84577  |
| .4377  | .4238 57411  | .9057 28930  | .4518 10343  | .0073 29753  |
| .4378  | .4239 47982  | .9056 86540  | .4519 20078  | .0073 74939  |
| .4379  | .4240 38549  | .9056 44140  | .4520 29818  | .0074 20137  |
| 0.4380 | 0.4241 29111 | 0.9056 01732 | 0.4521 39562 | 1.0074 65345 |
| .4381  | .4242 19669  | .9055 59315  | .4522 49311  | .0075 10565  |
| .4382  | .4243 10223  | .9055 16888  | .4523 59064  | .0075 55795  |
| .4383  | .4244 00772  | .9054 74453  | .4524 68822  | .0076 01036  |
| .4384  | .4244 91318  | .9054 32008  | .4525 78585  | .0076 46289  |
| 0.4385 | 0.4245 81859 | 0.9053 89554 | 0.4526 88351 | 1.0076 91552 |
| .4386  | .4246 72396  | .9053 47092  | .4527 98123  | .0077 36826  |
| .4387  | .4247 62928  | .9053 04620  | .4529 07899  | .0077 82112  |
| .4388  | .4248 53457  | .9052 62139  | .4530 17679  | .0078 27408  |
| .4389  | .4249 43981  | .9052 19649  | .4531 27464  | .0078 72715  |
| 0.4390 | 0.4250 34501 | 0.9051 77150 | 0.4532 37254 | 1.0079 18034 |
| .4391  | .4251 25016  | .9051 34642  | .4533 47048  | .0079 63363  |
| .4392  | .4252 15528  | .9050 92125  | .4534 56847  | .0080 08703  |
| .4393  | .4253 06035  | .9050 49599  | .4535 66650  | .0080 54054  |
| .4394  | .4253 96537  | .9050 07064  | .4536 76457  | .0080 99416  |
| 0.4395 | 0.4254 87036 | 0.9049 64520 | 0.4537 86270 | 1.0081 44789 |
| .4396  | .4255 77530  | .9049 21967  | .4538 96086  | .0081 90174  |
| .4397  | .4256 68020  | .9048 79404  | .4540 05908  | .0082 35569  |
| .4398  | .4257 58506  | .9048 36833  | .4541 15733  | .0082 80975  |
| .4399  | .4258 48988  | .9047 94253  | .4542 25564  | .0083 26392  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.4400 | 0.4259 39465 | 0.9047 51663 | 0.4543 35399 | 1.0983 71820 |
| .4401  | .4260 29938  | .9047 09065  | .4544 45238  | .0984 17259  |
| .4402  | .4261 20407  | .9046 66457  | .4545 55082  | .0984 62709  |
| .4403  | .4262 10871  | .9046 23841  | .4546 64931  | .0985 08170  |
| .4404  | .4263 01332  | .9045 81215  | .4547 74784  | .0985 53642  |
| 0.4405 | 0.4263 91788 | 0.9045 38580 | 0.4548 84641 | 1.0985 99125 |
| .4406  | .4264 82239  | .9044 95937  | .4549 94504  | .0986 44619  |
| .4407  | .4265 72687  | .9044 53284  | .4551 04370  | .0986 90124  |
| .4408  | .4266 63130  | .9044 10622  | .4552 14242  | .0987 35640  |
| .4409  | .4267 53569  | .9043 67951  | .4553 24117  | .0987 81167  |
| 0.4410 | 0.4268 44004 | 0.9043 25271 | 0.4554 33998 | 1.0988 26704 |
| .4411  | .4269 34434  | .9042 82583  | .4555 43883  | .0988 72253  |
| .4412  | .4270 24860  | .9042 39885  | .4556 53772  | .0989 17813  |
| .4413  | .4271 15282  | .9041 97178  | .4557 63666  | .0989 63384  |
| .4414  | .4272 05700  | .9041 54462  | .4558 73565  | .0990 08966  |
| 0.4415 | 0.4272 96113 | 0.9041 11736 | 0.4559 83468 | 1.0990 54559 |
| .4416  | .4273 86522  | .9040 69002  | .4560 93376  | .0991 00163  |
| .4417  | .4274 76927  | .9040 26259  | .4562 03288  | .0991 45777  |
| .4418  | .4275 67327  | .9039 83507  | .4563 13205  | .0991 91403  |
| .4419  | .4276 57723  | .9039 40746  | .4564 23127  | .0992 37040  |
| 0.4420 | 0.4277 48115 | 0.9038 97975 | 0.4565 33052 | 1.0992 82688 |
| .4421  | .4278 38503  | .9038 55196  | .4566 42983  | .0993 28347  |
| .4422  | .4279 28886  | .9038 12408  | .4567 52918  | .0993 74017  |
| .4423  | .4280 19265  | .9037 69610  | .4568 62858  | .0994 19697  |
| .4424  | .4281 09640  | .9037 26804  | .4569 72802  | .0994 65389  |
| 0.4425 | 0.4282 00011 | 0.9036 83988 | 0.4570 82751 | 1.0995 11092 |
| .4426  | .4282 90377  | .9036 41164  | .4571 92704  | .0995 56806  |
| .4427  | .4283 80739  | .9035 98330  | .4573 02662  | .0996 02530  |
| .4428  | .4284 71097  | .9035 55488  | .4574 12625  | .0996 48266  |
| .4429  | .4285 61450  | .9035 12636  | .4575 22592  | .0996 94013  |
| 0.4430 | 0.4286 51799 | 0.9034 69775 | 0.4576 32564 | 1.0997 39771 |
| .4431  | .4287 42144  | .9034 26906  | .4577 42540  | .0997 85539  |
| .4432  | .4288 32485  | .9033 84027  | .4578 52521  | .0998 31319  |
| .4433  | .4289 22821  | .9033 41139  | .4579 62506  | .0998 77110  |
| .4434  | .4290 13153  | .9032 98242  | .4580 72496  | .0999 22912  |
| 0.4435 | 0.4291 03481 | 0.9032 55337 | 0.4581 82491 | 1.0999 68724 |
| .4436  | .4291 93804  | .9032 12422  | .4582 92490  | .1000 14548  |
| .4437  | .4292 84123  | .9031 69498  | .4584 02494  | .1000 60383  |
| .4438  | .4293 74438  | .9031 26565  | .4585 12502  | .1001 06229  |
| .4439  | .4294 64748  | .9030 83623  | .4586 22515  | .1001 52085  |
| 0.4440 | 0.4295 55055 | 0.9030 40672 | 0.4587 32532 | 1.1001 97953 |
| .4441  | .4296 45356  | .9029 97712  | .4588 42554  | .1002 43832  |
| .4442  | .4297 35654  | .9029 54743  | .4589 52581  | .1002 89722  |
| .4443  | .4298 25947  | .9029 11765  | .4590 62612  | .1003 35622  |
| .4444  | .4299 16236  | .9028 68778  | .4591 72648  | .1003 81534  |
| 0.4445 | 0.4300 06521 | 0.9028 25782 | 0.4592 82689 | 1.1004 27457 |
| .4446  | .4300 96802  | .9027 82776  | .4593 92734  | .1004 73391  |
| .4447  | .4301 87078  | .9027 39762  | .4595 02783  | .1005 19336  |
| .4448  | .4302 77350  | .9026 96739  | .4596 12838  | .1005 65291  |
| .4449  | .4303 67617  | .9026 53707  | .4597 22896  | .1006 11258  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.4450 | 0.4304 57880 | 0.9026 10665 | 0.4598 32960 | 1.1006 57236 |
| .4451  | .4305 48139  | .9025 67615  | .4599 43023  | .1007 03325  |
| .4452  | .4306 38394  | .9025 24556  | .4600 53101  | .1007 49325  |
| .4453  | .4307 28644  | .9024 81487  | .4601 63173  | .1007 95325  |
| .4454  | .4308 18890  | .9024 38410  | .4602 73260  | .1008 41357  |
| 0.4455 | 0.4309 09132 | 0.9023 95324 | 0.4603 83346 | 1.1008 87390 |
| .4456  | .4309 99369  | .9023 52228  | .4604 93437  | .1009 33334  |
| .4457  | .4310 89602  | .9023 09124  | .4606 03533  | .1009 79399  |
| .4458  | .4311 79831  | .9022 66010  | .4607 13633  | .1010 25455  |
| .4459  | .4312 70055  | .9022 22888  | .4608 23738  | .1010 71531  |
| 0.4460 | 0.4313 60276 | 0.9021 79756 | 0.4609 33847 | 1.1011 17619 |
| .4461  | .4314 50491  | .9021 36616  | .4610 43961  | .1011 63718  |
| .4462  | .4315 40703  | .9020 93466  | .4611 54080  | .1012 09823  |
| .4463  | .4316 30910  | .9020 50308  | .4612 64203  | .1012 55940  |
| .4464  | .4317 21113  | .9020 07140  | .4613 74331  | .1013 02021  |
| 0.4465 | 0.4318 11312 | 0.9019 63963 | 0.4614 84464 | 1.1013 48224 |
| .4466  | .4319 01506  | .9019 20778  | .4615 94601  | .1013 94373  |
| .4467  | .4319 91696  | .9018 77583  | .4617 04743  | .1014 40549  |
| .4468  | .4320 81881  | .9018 34379  | .4618 14888  | .1014 86711  |
| .4469  | .4321 72063  | .9017 91167  | .4619 25040  | .1015 32901  |
| 0.4470 | 0.4322 62240 | 0.9017 47945 | 0.4620 35190 | 1.1015 79104 |
| .4471  | .4323 52412  | .9017 04714  | .4621 45356  | .1016 25313  |
| .4472  | .4324 42580  | .9016 61475  | .4622 55521  | .1016 71533  |
| .4473  | .4325 32744  | .9016 18226  | .4623 65690  | .1017 17764  |
| .4474  | .4326 22904  | .9015 74968  | .4624 75864  | .1017 64006  |
| 0.4475 | 0.4327 13059 | 0.9015 31701 | 0.4625 86043 | 1.1018 10259 |
| .4476  | .4328 03210  | .9014 88425  | .4626 96226  | .1018 56523  |
| .4477  | .4328 93357  | .9014 45141  | .4628 06414  | .1019 02794  |
| .4478  | .4329 83499  | .9014 01847  | .4629 16607  | .1019 49084  |
| .4479  | .4330 73637  | .9013 58544  | .4630 26804  | .1019 95399  |
| 0.4480 | 0.4331 63771 | 0.9013 15232 | 0.4631 37006 | 1.1020 41690 |
| .4481  | .4332 53901  | .9012 71911  | .4632 47212  | .1020 88009  |
| .4482  | .4333 44026  | .9012 28581  | .4633 57423  | .1021 34339  |
| .4483  | .4334 34146  | .9011 85242  | .4634 67639  | .1021 80681  |
| .4484  | .4335 24263  | .9011 41894  | .4635 77860  | .1022 27033  |
| 0.4485 | 0.4336 14375 | 0.9010 98537 | 0.4636 88085 | 1.1022 73396 |
| .4486  | .4337 04482  | .9010 55171  | .4637 98314  | .1023 19770  |
| .4487  | .4337 94586  | .9010 11797  | .4639 08549  | .1023 66156  |
| .4488  | .4338 84685  | .9009 68413  | .4640 18787  | .1024 12552  |
| .4489  | .4339 74779  | .9009 25020  | .4641 29031  | .1024 58960  |
| 0.4490 | 0.4340 64870 | 0.9008 81618 | 0.4642 39279 | 1.1025 05378 |
| .4491  | .4341 54956  | .9008 38207  | .4643 49532  | .1025 51807  |
| .4492  | .4342 45037  | .9007 94787  | .4644 59790  | .1025 98248  |
| .4493  | .4343 35115  | .9007 51358  | .4645 70052  | .1026 44699  |
| .4494  | .4344 25188  | .9007 07920  | .4646 80319  | .1026 91162  |
| 0.4495 | 0.4345 15256 | 0.9006 64473 | 0.4647 90590 | 1.1027 37635 |
| .4496  | .4346 05320  | .9006 21017  | .4649 00866  | .1027 84120  |
| .4497  | .4346 95380  | .9005 77551  | .4650 11147  | .1028 30616  |
| .4498  | .4347 85436  | .9005 34077  | .4651 21432  | .1028 77122  |
| .4499  | .4348 75487  | .9004 90594  | .4652 31722  | .1029 23640  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.4500 | 0.4349 65534 | 0.9004 47102 | 0.4653 42017 | 1.1029 70169 |
| .4501  | .4350 55577  | .9004 03601  | .4654 52316  | .1030 16708  |
| .4502  | .4351 45615  | .9003 60091  | .4655 62620  | .1030 63259  |
| .4503  | .4352 35649  | .9003 16572  | .4656 72929  | .1031 09821  |
| .4504  | .4353 25678  | .9002 73044  | .4657 83242  | .1031 56394  |
| 0.4505 | 0.4354 15703 | 0.9002 29507 | 0.4658 93560 | 1.1032 02977 |
| .4506  | .4355 05724  | .9001 85961  | .4660 03883  | .1032 49572  |
| .4507  | .4355 95740  | .9001 42406  | .4661 14210  | .1032 96178  |
| .4508  | .4356 85753  | .9000 98842  | .4662 24542  | .1033 42795  |
| .4509  | .4357 75760  | .9000 55269  | .4663 34879  | .1033 89423  |
| 0.4510 | 0.4358 65764 | 0.9000 11687 | 0.4664 45220 | 1.1034 36062 |
| .4511  | .4359 55763  | .8999 68096  | .4665 55566  | .1034 82712  |
| .4512  | .4360 45757  | .8999 24496  | .4666 65917  | .1035 29373  |
| .4513  | .4361 35747  | .8998 80886  | .4667 76272  | .1035 76045  |
| .4514  | .4362 25733  | .8998 37268  | .4668 86632  | .1036 22729  |
| 0.4515 | 0.4363 15715 | 0.8997 93641 | 0.4669 96996 | 1.1036 69423 |
| .4516  | .4364 05692  | .8997 50005  | .4671 07366  | .1037 16128  |
| .4517  | .4364 95665  | .8997 06360  | .4672 17740  | .1037 62844  |
| .4518  | .4365 85633  | .8996 62706  | .4673 28118  | .1038 95571  |
| .4519  | .4366 75597  | .8996 19043  | .4674 38501  | .1038 56310  |
| 0.4520 | 0.4367 65557 | 0.8995 75371 | 0.4675 48889 | 1.1039 03059 |
| .4521  | .4368 55513  | .8995 31690  | .4676 59282  | .1039 49820  |
| .4522  | .4369 45464  | .8994 88000  | .4677 69679  | .1039 96591  |
| .4523  | .4370 35410  | .8994 44301  | .4678 80081  | .1040 43373  |
| .4524  | .4371 25352  | .8994 00593  | .4679 90488  | .1040 90167  |
| 0.4525 | 0.4372 15290 | 0.8993 56876 | 0.4681 00899 | 1.1041 36972 |
| .4526  | .4373 05224  | .8993 13150  | .4682 11315  | .1041 83787  |
| .4527  | .4373 95153  | .8992 69415  | .4683 21736  | .1042 30614  |
| .4528  | .4374 85078  | .8992 25671  | .4684 32162  | .1042 77452  |
| .4529  | .4375 74998  | .8991 81918  | .4685 42592  | .1043 24300  |
| 0.4530 | 0.4376 64914 | 0.8991 38156 | 0.4686 53026 | 1.1043 71160 |
| .4531  | .4377 54826  | .8990 94385  | .4687 63466  | .1044 18031  |
| .4532  | .4378 44733  | .8990 50605  | .4688 73910  | .1044 64913  |
| .4533  | .4379 34636  | .8990 06816  | .4689 84359  | .1045 11806  |
| .4534  | .4380 24534  | .8989 63018  | .4690 94812  | .1045 58710  |
| 0.4535 | 0.4381 14428 | 0.8989 19211 | 0.4692 05271 | 1.1046 05625 |
| .4536  | .4382 04318  | .8988 75395  | .4693 15734  | .1046 52551  |
| .4537  | .4382 94203  | .8988 31570  | .4694 26201  | .1046 99488  |
| .4538  | .4383 84084  | .8987 87736  | .4695 36673  | .1047 46456  |
| .4539  | .4384 73961  | .8987 43893  | .4696 47150  | .1047 93395  |
| 0.4540 | 0.4385 63833 | 0.8987 00041 | 0.4697 57632 | 1.1048 40365 |
| .4541  | .4386 53701  | .8986 56180  | .4698 68118  | .1048 87347  |
| .4542  | .4387 43564  | .8986 12311  | .4699 78610  | .1049 34339  |
| .4543  | .4388 33423  | .8985 68432  | .4700 89105  | .1049 81342  |
| .4544  | .4389 23278  | .8985 24544  | .4701 99606  | .1050 28357  |
| 0.4545 | 0.4390 13128 | 0.8984 80647 | 0.4703 10111 | 1.1050 75382 |
| .4546  | .4391 02974  | .8984 36741  | .4704 20621  | .1051 22419  |
| .4547  | .4391 92816  | .8983 92826  | .4705 31136  | .1051 69466  |
| .4548  | .4392 82653  | .8983 48903  | .4706 41655  | .1052 16525  |
| .4549  | .4393 72486  | .8983 04970  | .4707 52179  | .1052 63595  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.4600 | 0.4439 48107 | 0.8960 52498 | 0.4763 95170 | 1.1076 78815 |
| .4601  | .4440 37710  | .8960 08098  | .4765 05940  | .1077 26460  |
| .4602  | .4441 27309  | .8959 63690  | .4766 16715  | .1077 74116  |
| .4603  | .4442 16903  | .8959 19273  | .4767 27495  | .1078 21784  |
| .4604  | .4443 06492  | .8958 74847  | .4768 38279  | .1078 69462  |
| 0.4605 | 0.4443 96078 | 0.8958 30411 | 0.4769 49069 | 1.1079 17151 |
| .4606  | .4444 85659  | .8957 85987  | .4770 59863  | .1079 64852  |
| .4607  | .4445 75235  | .8957 41514  | .4771 70662  | .1080 12563  |
| .4608  | .4446 64807  | .8956 97052  | .4772 81465  | .1080 60286  |
| .4609  | .4447 54374  | .8956 52581  | .4773 92274  | .1081 08020  |
| 0.4610 | 0.4448 43937 | 0.8956 08101 | 0.4775 03087 | 1.1081 55764 |
| .4611  | .4449 33496  | .8955 63613  | .4776 13905  | .1082 03520  |
| .4612  | .4450 23050  | .8955 19115  | .4777 24728  | .1082 51287  |
| .4613  | .4451 12600  | .8954 74608  | .4778 35555  | .1082 99065  |
| .4614  | .4452 02145  | .8954 30092  | .4779 46387  | .1083 46854  |
| 0.4615 | 0.4452 91686 | 0.8953 85568 | 0.4780 57225 | 1.1083 94654 |
| .4616  | .4453 81222  | .8953 41034  | .4781 68066  | .1084 42466  |
| .4617  | .4454 70754  | .8952 96491  | .4782 78913  | .1084 90288  |
| .4618  | .4455 60281  | .8952 51940  | .4783 89764  | .1085 38121  |
| .4619  | .4456 49804  | .8952 07379  | .4785 00621  | .1085 85966  |
| 0.4620 | 0.4457 39323 | 0.8951 62810 | 0.4786 11482 | 1.1086 33822 |
| .4621  | .4458 28837  | .8951 18231  | .4787 22347  | .1086 81688  |
| .4622  | .4459 18347  | .8950 73644  | .4788 33218  | .1087 29566  |
| .4623  | .4460 07852  | .8950 29048  | .4789 44093  | .1087 77455  |
| .4624  | .4460 97352  | .8949 84442  | .4790 54973  | .1088 25355  |
| 0.4625 | 0.4461 86849 | 0.8949 39828 | 0.4791 65858 | 1.1088 73266 |
| .4626  | .4462 76340  | .8948 95205  | .4792 76748  | .1089 21188  |
| .4627  | .4463 65828  | .8948 50573  | .4793 87643  | .1089 69121  |
| .4628  | .4464 55310  | .8948 05932  | .4794 98542  | .1090 17066  |
| .4629  | .4465 44789  | .8947 61282  | .4796 09446  | .1090 65021  |
| 0.4630 | 0.4466 34263 | 0.8947 16623 | 0.4797 20355 | 1.1091 12987 |
| .4631  | .4467 23732  | .8946 71955  | .4798 31269  | .1091 60965  |
| .4632  | .4468 13197  | .8946 27278  | .4799 42187  | .1092 08954  |
| .4633  | .4469 02658  | .8945 82592  | .4800 53110  | .1092 56953  |
| .4634  | .4469 92114  | .8945 37898  | .4801 64039  | .1093 04964  |
| 0.4635 | 0.4470 81565 | 0.8944 93194 | 0.4802 74971 | 1.1093 52986 |
| .4636  | .4471 71012  | .8944 48481  | .4803 85909  | .1094 01019  |
| .4637  | .4472 60455  | .8944 03760  | .4804 96852  | .1094 49063  |
| .4638  | .4473 49893  | .8943 59029  | .4806 07799  | .1094 97119  |
| .4639  | .4474 39327  | .8943 14290  | .4807 18751  | .1095 45185  |
| 0.4640 | 0.4475 28756 | 0.8942 69541 | 0.4808 29708 | 1.1095 93262 |
| .4641  | .4476 18181  | .8942 24784  | .4809 40670  | .1096 41351  |
| .4642  | .4477 07601  | .8941 80018  | .4810 51636  | .1096 89451  |
| .4643  | .4477 97017  | .8941 35243  | .4811 62608  | .1097 37561  |
| .4644  | .4478 86428  | .8940 90458  | .4812 73584  | .1097 85683  |
| 0.4645 | 0.4479 75835 | 0.8940 45665 | 0.4813 84565 | 1.1098 33816 |
| .4646  | .4480 65237  | .8940 00863  | .4814 95551  | .1098 81960  |
| .4647  | .4481 54635  | .8939 56052  | .4816 06541  | .1099 30115  |
| .4648  | .4482 44028  | .8939 11232  | .4817 17537  | .1099 78281  |
| .4649  | .4483 33417  | .8938 66403  | .4818 28537  | .1100 26459  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.4650 | 0.4484 22801 | 0.8938 21566 | 0.4819 39549 | 1.1108 74347 |
| .4651  | .4485 12181  | .8937 76719  | .4820 50852  | .1109 23847  |
| .4652  | .4486 01557  | .8937 31863  | .4821 61566  | .1109 71057  |
| .4653  | .4486 90928  | .8936 86999  | .4822 72586  | .1109 19279  |
| .4654  | .4487 80294  | .8936 42125  | .4823 83610  | .1109 67512  |
| 0.4655 | 0.4488 69656 | 0.8935 97242 | 0.4824 94639 | 1.1108 18756 |
| .4656  | .4489 59014  | .8935 52351  | .4826 05673  | .1108 64011  |
| .4657  | .4490 48367  | .8935 07451  | .4827 16712  | .1104 12277  |
| .4658  | .4491 37715  | .8934 62541  | .4828 27756  | .1104 60854  |
| .4659  | .4492 27059  | .8934 17623  | .4829 38804  | .1105 08942  |
| 0.4660 | 0.4493 16399 | 0.8933 72696 | 0.4830 49858 | 1.1105 57142 |
| .4661  | .4494 05734  | .8933 27760  | .4831 60916  | .1106 05452  |
| .4662  | .4494 95064  | .8932 82815  | .4832 71979  | .1106 53774  |
| .4663  | .4495 84390  | .8932 37861  | .4833 83047  | .1107 02107  |
| .4664  | .4496 73712  | .8931 92898  | .4834 94119  | .1107 50450  |
| 0.4665 | 0.4497 63029 | 0.8931 47926 | 0.4835 05197 | 1.1107 98705 |
| .4666  | .4498 52341  | .8931 02945  | .4837 16279  | .1108 47172  |
| .4667  | .4499 41649  | .8930 57956  | .4838 27360  | .1108 95549  |
| .4668  | .4500 30953  | .8930 12957  | .4839 38458  | .1109 43937  |
| .4669  | .4501 20252  | .8929 67949  | .4840 49555  | .1109 92336  |
| 0.4670 | 0.4502 09547 | 0.8929 22933 | 0.4841 60657 | 1.1110 40747 |
| .4671  | .4502 98837  | .8928 77908  | .4842 71763  | .1110 89169  |
| .4672  | .4503 88122  | .8928 32873  | .4843 82874  | .1111 37601  |
| .4673  | .4504 77403  | .8927 87830  | .4844 93991  | .1111 86045  |
| .4674  | .4505 66680  | .8927 42778  | .4846 05112  | .1112 34500  |
| 0.4675 | 0.4506 55952 | 0.8926 97717 | 0.4847 16237 | 1.1112 82966 |
| .4676  | .4507 45219  | .8926 52647  | .4848 27368  | .1113 31443  |
| .4677  | .4508 34482  | .8926 07568  | .4849 38504  | .1113 79932  |
| .4678  | .4509 23741  | .8925 62480  | .4850 49644  | .1114 28431  |
| .4679  | .4510 12995  | .8925 17383  | .4851 60789  | .1114 76942  |
| 0.4680 | 0.4511 02244 | 0.8924 72277 | 0.4852 71940 | 1.1115 25463 |
| .4681  | .4511 91489  | .8924 27162  | .4853 83094  | .1115 73996  |
| .4682  | .4512 80730  | .8923 82039  | .4854 94254  | .1116 22540  |
| .4683  | .4513 69966  | .8923 36906  | .4856 05419  | .1116 71095  |
| .4684  | .4514 59197  | .8922 91765  | .4857 16589  | .1117 19661  |
| 0.4685 | 0.4515 48424 | 0.8922 46614 | 0.4858 27763 | 1.1117 68238 |
| .4686  | .4516 37646  | .8922 01455  | .4859 38942  | .1118 16826  |
| .4687  | .4517 26864  | .8921 56287  | .4860 50126  | .1118 65426  |
| .4688  | .4518 16078  | .8921 11110  | .4861 61315  | .1119 14036  |
| .4689  | .4519 05286  | .8920 65924  | .4862 72509  | .1119 62658  |
| 0.4690 | 0.4519 94491 | 0.8920 20729 | 0.4863 83708 | 1.1120 11291 |
| .4691  | .4520 83691  | .8919 75525  | .4864 94911  | .1120 59935  |
| .4692  | .4521 72886  | .8919 30312  | .4866 06120  | .1121 08590  |
| .4693  | .4522 62077  | .8918 85090  | .4867 17333  | .1121 57256  |
| .4694  | .4523 51263  | .8918 39859  | .4868 28551  | .1122 05933  |
| 0.4695 | 0.4524 40445 | 0.8917 94620 | 0.4869 39774 | 1.1122 54622 |
| .4696  | .4525 29622  | .8917 49371  | .4870 51002  | .1123 03321  |
| .4697  | .4526 18795  | .8917 04114  | .4871 62235  | .1123 52032  |
| .4698  | .4527 07963  | .8916 58848  | .4872 73473  | .1124 00754  |
| .4699  | .4527 97126  | .8916 13572  | .4873 84715  | .1124 49487  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.4700 | 0.4528 86285 | 0.8915 68288 | 0.4874 95962 | 1.1124 98231 |
| .4701  | .4529 75440  | .8915 22995  | .4876 07215  | .1125 46986  |
| .4702  | .4530 64590  | .8914 77693  | .4877 18472  | .1125 95752  |
| .4703  | .4531 53735  | .8914 32382  | .4878 29734  | .1126 44530  |
| .4704  | .4532 42876  | .8913 87062  | .4879 41001  | .1126 93318  |
| 0.4705 | 0.4533 32013 | 0.8913 41734 | 0.4880 52273 | 1.1127 42118 |
| .4706  | .4534 21145  | .8912 96396  | .4881 63549  | .1127 90929  |
| .4707  | .4535 10272  | .8912 51049  | .4882 74831  | .1128 39751  |
| .4708  | .4535 99395  | .8912 05694  | .4883 86117  | .1128 88584  |
| .4709  | .4536 88513  | .8911 60330  | .4884 97408  | .1129 37428  |
| 0.4710 | 0.4537 77627 | 0.8911 14956 | 0.4886 08705 | 1.1129 86283 |
| .4711  | .4538 66736  | .8910 69574  | .4887 20006  | .1130 35149  |
| .4712  | .4539 55841  | .8910 24183  | .4888 31312  | .1130 84027  |
| .4713  | .4540 44941  | .8909 78783  | .4889 42623  | .1131 32916  |
| .4714  | .4541 34037  | .8909 33374  | .4890 53938  | .1131 81816  |
| 0.4715 | 0.4542 23128 | 0.8908 87956 | 0.4891 65259 | 1.1132 30727 |
| .4716  | .4543 12214  | .8908 42529  | .4892 76584  | .1132 79649  |
| .4717  | .4544 01296  | .8907 97094  | .4893 87915  | .1133 28582  |
| .4718  | .4544 90374  | .8907 51649  | .4894 99250  | .1133 77526  |
| .4719  | .4545 79447  | .8907 06195  | .4896 10590  | .1134 26482  |
| 0.4720 | 0.4546 68515 | 0.8906 60733 | 0.4897 21935 | 1.1134 75448 |
| .4721  | .4547 57579  | .8906 15262  | .4898 33285  | .1135 24426  |
| .4722  | .4548 46638  | .8905 69782  | .4899 44640  | .1135 73415  |
| .4723  | .4549 35693  | .8905 24292  | .4900 56000  | .1136 22415  |
| .4724  | .4550 24743  | .8904 78794  | .4901 67365  | .1136 71426  |
| 0.4725 | 0.4551 13789 | 0.8904 33288 | 0.4902 78734 | 1.1137 20448 |
| .4726  | .4552 02830  | .8903 87772  | .4903 90109  | .1137 69482  |
| .4727  | .4552 91866  | .8903 42247  | .4905 01488  | .1138 18527  |
| .4728  | .4553 80898  | .8902 96713  | .4906 12873  | .1138 67582  |
| .4729  | .4554 69925  | .8902 51171  | .4907 24262  | .1139 16649  |
| 0.4730 | 0.4555 58948 | 0.8902 05619 | 0.4908 35656 | 1.1139 65727 |
| .4731  | .4556 47967  | .8901 60059  | .4909 47055  | .1140 14816  |
| .4732  | .4557 36980  | .8901 14490  | .4910 58459  | .1140 63916  |
| .4733  | .4558 25989  | .8900 68912  | .4911 69868  | .1141 13028  |
| .4734  | .4559 14994  | .8900 23325  | .4912 81281  | .1141 62150  |
| 0.4735 | 0.4560 03994 | 0.8899 77729 | 0.4913 92700 | 1.1142 11284 |
| .4736  | .4560 92990  | .8899 32124  | .4915 04124  | .1142 60429  |
| .4737  | .4561 81981  | .8898 86510  | .4916 15552  | .1143 09585  |
| .4738  | .4562 70967  | .8898 40887  | .4917 26986  | .1143 58752  |
| .4739  | .4563 59949  | .8897 95256  | .4918 38424  | .1144 07930  |
| 0.4740 | 0.4564 48926 | 0.8897 49615 | 0.4919 49867 | 1.1144 57120 |
| .4741  | .4565 37899  | .8897 03966  | .4920 61315  | .1145 06320  |
| .4742  | .4566 26867  | .8896 58308  | .4921 72768  | .1145 55532  |
| .4743  | .4567 15830  | .8896 12641  | .4922 84227  | .1146 04755  |
| .4744  | .4568 04789  | .8895 66965  | .4923 95690  | .1146 53989  |
| 0.4745 | 0.4568 93744 | 0.8895 21280 | 0.4925 07157 | 1.1147 03234 |
| .4746  | .4569 82694  | .8894 75586  | .4926 18630  | .1147 52490  |
| .4747  | .4570 71639  | .8894 29883  | .4927 30108  | .1148 01758  |
| .4748  | .4571 60579  | .8893 84172  | .4928 41590  | .1148 51036  |
| .4749  | .4572 49516  | .8893 38451  | .4929 53078  | .1149 00326  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 0.4750 | 0.4573 38447 | 0.8892 92722 | 0.4930 64451 | 1.1143 40027 |
| .4751  | .4574 27374  | .8892 46983  | .4931 76068  | .1143 76068  |
| .4752  | .4575 16297  | .8892 01236  | .4932 87579  | .1143 40027  |
| .4753  | .4576 05214  | .8891 55480  | .4933 99075  | .1143 99075  |
| .4754  | .4576 94128  | .8891 09715  | .4935 10590  | .1151 46942  |
| 0.4755 | 0.4577 83036 | 0.8890 63941 | 0.4936 22107 | 1.1151 96299 |
| .4756  | .4578 71940  | .8890 18158  | .4937 33622  | .1152 45666  |
| .4757  | .4579 60840  | .8889 72367  | .4938 45136  | .1152 95045  |
| .4758  | .4580 49735  | .8889 26566  | .4939 56638  | .1153 44435  |
| .4759  | .4581 38625  | .8888 80757  | .4940 68225  | .1153 93837  |
| 0.4760 | 0.4582 27511 | 0.8888 34939 | 0.4941 79767 | 1.1154 43249 |
| .4761  | .4583 16392  | .8887 89111  | .4942 91314  | .1154 92673  |
| .4762  | .4584 05269  | .8887 43275  | .4944 02866  | .1155 42107  |
| .4763  | .4584 94141  | .8886 97430  | .4945 14422  | .1155 91553  |
| .4764  | .4585 83008  | .8886 51576  | .4946 25984  | .1156 41010  |
| 0.4765 | 0.4586 71871 | 0.8886 05714 | 0.4947 37550 | 1.1156 90478 |
| .4766  | .4587 60730  | .8885 59842  | .4948 49122  | .1157 39958  |
| .4767  | .4588 49583  | .8885 13962  | .4949 60698  | .1157 89448  |
| .4768  | .4589 38432  | .8884 68072  | .4950 72280  | .1158 38950  |
| .4769  | .4590 27277  | .8884 22174  | .4951 83866  | .1158 88463  |
| 0.4770 | 0.4591 16117 | 0.8883 76267 | 0.4952 95437 | 1.1159 37987 |
| .4771  | .4592 04952  | .8883 30351  | .4954 07014  | .1159 87522  |
| .4772  | .4592 93783  | .8882 84426  | .4955 18565  | .1160 37068  |
| .4773  | .4593 82609  | .8882 38492  | .4956 30261  | .1160 86626  |
| .4774  | .4594 71431  | .8881 92549  | .4957 41872  | .1161 36194  |
| 0.4775 | 0.4595 60247 | 0.8881 46598 | 0.4958 53488 | 1.1161 85774 |
| .4776  | .4596 49060  | .8881 00637  | .4959 65109  | .1162 35365  |
| .4777  | .4597 37868  | .8880 54668  | .4960 76735  | .1162 84967  |
| .4778  | .4598 26671  | .8880 08690  | .4961 88366  | .1163 34580  |
| .4779  | .4599 15469  | .8879 62703  | .4963 00002  | .1163 84205  |
| 0.4780 | 0.4600 04263 | 0.8879 16707 | 0.4964 11643 | 1.1164 33840 |
| .4781  | .4600 93053  | .8878 70702  | .4965 23289  | .1164 83487  |
| .4782  | .4601 81837  | .8878 24688  | .4966 34940  | .1165 33145  |
| .4783  | .4602 70618  | .8877 78665  | .4967 46596  | .1165 82814  |
| .4784  | .4603 59393  | .8877 32634  | .4968 58256  | .1166 32494  |
| 0.4785 | 0.4604 48164 | 0.8876 86593 | 0.4969 69922 | 1.1166 82186 |
| .4786  | .4605 36931  | .8876 40544  | .4970 81593  | .1167 31888  |
| .4787  | .4606 25692  | .8875 94486  | .4971 93269  | .1167 81602  |
| .4788  | .4607 14449  | .8875 48419  | .4973 04949  | .1168 31327  |
| .4789  | .4608 03202  | .8875 02343  | .4974 16635  | .1168 81063  |
| 0.4790 | 0.4608 91950 | 0.8874 56258 | 0.4975 28325 | 1.1169 30810 |
| .4791  | .4609 80693  | .8874 10165  | .4976 40021  | .1169 80569  |
| .4792  | .4610 69432  | .8873 64062  | .4977 51722  | .1170 30338  |
| .4793  | .4611 58166  | .8873 17951  | .4978 63427  | .1170 80119  |
| .4794  | .4612 46895  | .8872 71831  | .4979 75138  | .1171 29911  |
| 0.4795 | 0.4613 35620 | 0.8872 25701 | 0.4980 86853 | 1.1171 79714 |
| .4796  | .4614 24341  | .8871 79563  | .4981 98574  | .1172 29528  |
| .4797  | .4615 13056  | .8871 33417  | .4983 10299  | .1172 79354  |
| .4798  | .4616 01767  | .8870 87261  | .4984 22029  | .1173 29190  |
| .4799  | .4616 90474  | .8870 41096  | .4985 33765  | .1173 79038  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 0.4800 | 0.4617 79176 | 0.8869 94923 | 0.4986 45505 | 1.1174 28897 |
| .4801  | .4618 67873  | .8869 48740  | .4987 57251  | .1174 78767  |
| .4802  | .4619 56565  | .8869 02549  | .4988 69001  | .1175 28648  |
| .4803  | .4620 45253  | .8868 56349  | .4989 80756  | .1175 78541  |
| .4804  | .4621 33937  | .8868 10140  | .4990 92517  | .1176 28445  |
| 0.4805 | 0.4622 22615 | 0.8867 63922 | 0.4992 04282 | 1.1176 78359 |
| .4806  | .4623 11289  | .8867 17696  | .4993 16052  | .1177 28285  |
| .4807  | .4623 99959  | .8866 71460  | .4994 27828  | .1177 78223  |
| .4808  | .4624 88624  | .8866 25216  | .4995 39608  | .1178 28171  |
| .4809  | .4625 77284  | .8865 78962  | .4996 51393  | .1178 78131  |
| 0.4810 | 0.4626 65939 | 0.8865 32700 | 0.4997 63184 | 1.1179 28101 |
| .4811  | .4627 54590  | .8864 86429  | .4998 74979  | .1179 78083  |
| .4812  | .4628 43237  | .8864 40149  | .4999 86779  | .1180 28076  |
| .4813  | .4629 31878  | .8863 93861  | .5000 98585  | .1180 78081  |
| .4814  | .4630 20515  | .8863 47563  | .5002 10395  | .1181 28096  |
| 0.4815 | 0.4631 09148 | 0.8863 01256 | 0.5003 22210 | 1.1181 78123 |
| .4816  | .4631 97776  | .8862 54941  | .5004 34030  | .1182 28160  |
| .4817  | .4632 86399  | .3862 08617  | .5005 45856  | .1182 78209  |
| .4818  | .4633 75017  | .8861 62284  | .5006 57686  | .1183 28270  |
| .4819  | .4634 63631  | .8861 15942  | .5007 69521  | .1183 78341  |
| 0.4820 | 0.4635 52241 | 0.8860 69591 | 0.5008 81362 | 1.1184 28424 |
| .4821  | .4636 40845  | .8860 23231  | .5009 93207  | .1184 78517  |
| .4822  | .4637 29445  | .8859 76863  | .5011 05057  | .1185 28622  |
| .4823  | .4638 18041  | .8859 30486  | .5012 16913  | .1185 78738  |
| .4824  | .4639 06631  | .8858 84099  | .5013 28773  | .1186 28866  |
| 0.4825 | 0.4639 95217 | 0.8858 37704 | 0.5014 40639 | 1.1186 79004 |
| .4826  | .4640 83799  | .8857 91300  | .5015 52509  | .1187 29154  |
| .4827  | .4641 72376  | .8857 44887  | .5016 64384  | .1187 79315  |
| .4828  | .4642 60948  | .8856 98466  | .5017 76265  | .1188 29487  |
| .4829  | .4643 49515  | .8856 52035  | .5018 88150  | .1188 79670  |
| 0.4830 | 0.4644 38078 | 0.8856 05596 | 0.5020 00041 | 1.1189 29864 |
| .4831  | .4645 26637  | .8855 59148  | .5021 11936  | .1189 80070  |
| .4832  | .4646 15190  | .8855 12891  | .5022 23837  | .1190 30287  |
| .4833  | .4647 03739  | .8854 66225  | .5023 35742  | .1190 80515  |
| .4834  | .4647 92283  | .8854 19750  | .5024 47653  | .1191 30754  |
| 0.4835 | 0.4648 80823 | 0.8853 73266 | 0.5025 59569 | 1.1191 81004 |
| .4836  | .4649 69358  | .8853 26774  | .5026 71489  | .1192 31266  |
| .4837  | .4650 57888  | .8852 80272  | .5027 83415  | .1192 81538  |
| .4838  | .4651 46414  | .8852 33762  | .5028 95345  | .1193 31822  |
| .4839  | .4652 34935  | .8851 87243  | .5030 07281  | .1193 82117  |
| 0.4840 | 0.4653 23452 | 0.8851 40715 | 0.5031 19222 | 1.1194 32424 |
| .4841  | .4654 11963  | .8850 94178  | .5032 31168  | .1194 82741  |
| .4842  | .4655 00470  | .8850 47633  | .5033 43118  | .1195 33070  |
| .4843  | .4655 88973  | .8850 01078  | .5034 55074  | .1195 83410  |
| .4844  | .4656 77471  | .8849 54515  | .5035 67035  | .1196 33761  |
| 0.4845 | 0.4657 65964 | 0.8849 07943 | 0.5036 79001 | 1.1196 84123 |
| .4846  | .4658 54452  | .8848 61362  | .5037 90972  | .1197 34497  |
| .4847  | .4659 42936  | .8848 14772  | .5039 02948  | .1197 84882  |
| .4848  | .4660 31415  | .8847 68173  | .5040 14929  | .1198 35277  |
| .4849  | .4661 19890  | .8847 21566  | .5041 26915  | .1198 85685  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.4850 | 0.4662 08359 | 0.8846 74949 | 0.5042 38906 | 1.1199 36103 |
| .4851  | .4662 96825  | .8846 28324  | .5043 50902  | .1199 86532  |
| .4852  | .4663 85285  | .8845 81690  | .5044 62903  | .1200 36973  |
| .4853  | .4664 73741  | .8845 35047  | .5045 74910  | .1200 87425  |
| .4854  | .4665 62192  | .8844 88395  | .5046 86921  | .1201 37888  |
| 0.4855 | 0.4666 50639 | 0.8844 41734 | 0.5047 98937 | 1.1201 88362 |
| .4856  | .4667 39080  | .8843 95065  | .5049 10959  | .1202 38848  |
| .4857  | .4668 27518  | .8843 48387  | .5050 22985  | .1202 89344  |
| .4858  | .4669 15950  | .8843 01699  | .5051 35016  | .1203 39852  |
| .4859  | .4670 04378  | .8842 55003  | .5052 47053  | .1203 90371  |
| 0.4860 | 0.4670 92801 | 0.8842 08298 | 0.5053 59094 | 1.1204 40902 |
| .4861  | .4671 81220  | .8841 61585  | .5054 71141  | .1204 91443  |
| .4862  | .4672 69633  | .8841 14862  | .5055 83193  | .1205 41996  |
| .4863  | .4673 58043  | .8840 68131  | .5056 95249  | .1205 92560  |
| .4864  | .4674 46447  | .8840 21391  | .5058 07311  | .1206 43135  |
| 0.4865 | 0.4675 34847 | 0.8839 74642 | 0.5059 19378 | 1.1206 93721 |
| .4866  | .4676 23242  | .8839 27884  | .5060 31450  | .1207 44319  |
| .4867  | .4677 11632  | .8838 81117  | .5061 43527  | .1207 94928  |
| .4868  | .4678 00018  | .8838 34341  | .5062 55609  | .1208 45548  |
| .4869  | .4678 88399  | .8837 87557  | .5063 67696  | .1208 96179  |
| 0.4870 | 0.4679 76776 | 0.8837 40764 | 0.5064 79788 | 1.1209 46821 |
| .4871  | .4680 65147  | .8836 93962  | .5065 91885  | .1209 97475  |
| .4872  | .4681 53515  | .8836 47151  | .5067 03988  | .1210 48140  |
| .4873  | .4682 41877  | .8836 00331  | .5068 16095  | .1210 98816  |
| .4874  | .4683 30235  | .8835 53502  | .5069 28207  | .1211 49503  |
| 0.4875 | 0.4684 18588 | 0.8835 06665 | 0.5070 40325 | 1.1212 00201 |
| .4876  | .4685 06936  | .8834 59819  | .5071 52448  | .1212 50911  |
| .4877  | .4685 95280  | .8834 12963  | .5072 64575  | .1213 01632  |
| .4878  | .4686 83619  | .8833 66099  | .5073 76708  | .1213 52364  |
| .4879  | .4687 71953  | .8833 19227  | .5074 88846  | .1214 03107  |
| 0.4880 | 0.4688 60282 | 0.8832 72345 | 0.5076 00988 | 1.1214 53862 |
| .4881  | .4689 48607  | .8832 25455  | .5077 13136  | .1215 04627  |
| .4882  | .4690 36927  | .8831 78555  | .5078 25289  | .1215 55404  |
| .4883  | .4691 25243  | .8831 31647  | .5079 37447  | .1216 06192  |
| .4884  | .4692 13554  | .8830 84730  | .5080 49611  | .1216 56992  |
| 0.4885 | 0.4693 01860 | 0.8830 37805 | 0.5081 61779 | 1.1217 07802 |
| .4886  | .4693 90161  | .8829 90870  | .5082 73952  | .1217 58624  |
| .4887  | .4694 78458  | .8829 43927  | .5083 86131  | .1218 09457  |
| .4888  | .4695 66750  | .8828 96974  | .5084 98314  | .1218 60301  |
| .4889  | .4696 55037  | .8828 50013  | .5086 10503  | .1219 11157  |
| 0.4890 | 0.4697 43320 | 0.8828 03043 | 0.5087 22696 | 1.1219 62023 |
| .4891  | .4698 31598  | .8827 56065  | .5088 34895  | .1220 12901  |
| .4892  | .4699 19871  | .8827 09077  | .5089 47099  | .1220 63790  |
| .4893  | .4700 08140  | .8826 62081  | .5090 59308  | .1221 14691  |
| .4894  | .4700 96404  | .8826 15075  | .5091 71522  | .1221 65602  |
| 0.4895 | 0.4701 84663 | 0.8825 68061 | 0.5092 83741 | 1.1222 16525 |
| .4896  | .4702 72917  | .8825 21038  | .5093 95965  | .1222 67459  |
| .4897  | .4703 61167  | .8824 74007  | .5095 08194  | .1223 18404  |
| .4898  | .4704 49412  | .8824 26966  | .5096 20429  | .1223 69361  |
| .4899  | .4705 37653  | .8823 79917  | .5097 32668  | .1224 20328  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.4900 | 0.4706 25888 | 0.8823 32859 | 0.5098 44913 | 1.1224 71307 |
| .4901  | .4707 14119  | .8822 85792  | .5099 57163  | .1225 22297  |
| .4902  | .4708 02345  | .8822 38716  | .5100 69417  | .1225 73299  |
| .4903  | .4708 90567  | .8821 91631  | .5101 81677  | .1226 24311  |
| .4904  | .4709 78784  | .8821 44538  | .5102 93942  | .1226 75335  |
| 0.4905 | 0.4710 66996 | 0.8820 97435 | 0.5104 06212 | 1.1227 26370 |
| .4906  | .4711 55203  | .8820 50324  | .5105 18487  | .1227 77416  |
| .4907  | .4712 43406  | .8820 03204  | .5106 30768  | .1228 28474  |
| .4908  | .4713 31604  | .8819 56076  | .5107 43053  | .1228 79542  |
| .4909  | .4714 19797  | .8819 08938  | .5108 55344  | .1229 30622  |
| 0.4910 | 0.4715 07986 | 0.8818 61792 | 0.5109 67639 | 1.1229 81713 |
| .4911  | .4715 96169  | .8818 14636  | .5110 79940  | .1230 32816  |
| .4912  | .4716 84348  | .8817 67472  | .5111 92246  | .1230 83929  |
| .4913  | .4717 72523  | .8817 20300  | .5113 04557  | .1231 35054  |
| .4914  | .4718 60693  | .8816 73118  | .5114 16873  | .1231 86190  |
| 0.4915 | 0.4719 48658 | 0.8816 25927 | 0.5115 29194 | 1.1232 37338 |
| .4916  | .4720 37018  | .8815 78728  | .5116 41520  | .1232 88496  |
| .4917  | .4721 25173  | .8815 31520  | .5117 53852  | .1233 39666  |
| .4918  | .4722 13324  | .8814 84303  | .5118 66188  | .1233 90847  |
| .4919  | .4723 01470  | .8814 37077  | .5119 78530  | .1234 42039  |
| 0.4920 | 0.4723 89611 | 0.8813 89843 | 0.5120 90877 | 1.1234 93243 |
| .4921  | .4724 77748  | .8813 42599  | .5122 03229  | .1235 44457  |
| .4922  | .4725 65880  | .8812 95347  | .5123 15586  | .1235 95683  |
| .4923  | .4726 54007  | .8812 48036  | .5124 27948  | .1236 46920  |
| .4924  | .4727 42130  | .8812 00816  | .5125 40315  | .1236 98169  |
| 0.4925 | 0.4728 30247 | 0.8811 53538 | 0.5126 52687 | 1.1237 49428 |
| .4926  | .4729 18360  | .8811 06250  | .5127 65065  | .1238 00699  |
| .4927  | .4730 06469  | .8810 58954  | .5128 77447  | .1238 51981  |
| .4928  | .4730 94572  | .8810 11649  | .5129 89835  | .1239 03275  |
| .4929  | .4731 82671  | .8809 64335  | .5131 02228  | .1239 54579  |
| 0.4930 | 0.4732 70765 | 0.8809 17013 | 0.5132 14626 | 1.1240 05895 |
| .4931  | .4733 58854  | .8808 69681  | .5133 27029  | .1240 57222  |
| .4932  | .4734 46939  | .8808 22341  | .5134 39438  | .1241 08561  |
| .4933  | .4735 35019  | .8807 74992  | .5135 51851  | .1241 59910  |
| .4934  | .4736 23094  | .8807 27634  | .5136 64270  | .1242 11271  |
| 0.4935 | 0.4737 11164 | 0.8806 80267 | 0.5137 76693 | 1.1242 62643 |
| .4936  | .4737 99230  | .8806 32892  | .5138 89122  | .1243 14026  |
| .4937  | .4738 87291  | .8805 85507  | .5140 01556  | .1243 65421  |
| .4938  | .4739 75347  | .8805 38114  | .5141 13995  | .1244 16827  |
| .4939  | .4740 63398  | .8804 90712  | .5142 26439  | .1244 68244  |
| 0.4940 | 0.4741 51445 | 0.8804 43301 | 0.5143 38889 | 1.1245 19672 |
| .4941  | .4742 39487  | .8803 95882  | .5144 51343  | .1245 71111  |
| .4942  | .4743 27524  | .8803 48454  | .5145 63803  | .1246 22562  |
| .4943  | .4744 15557  | .8803 01016  | .5146 76268  | .1246 74024  |
| .4944  | .4745 03585  | .8802 53570  | .5147 88738  | .1247 25497  |
| 0.4945 | 0.4745 91608 | 0.8802 06116 | 0.5149 01213 | 1.1247 76932 |
| .4946  | .4746 79626  | .8801 58652  | .5150 13693  | .1248 28478  |
| .4947  | .4747 67639  | .8801 11180  | .5151 26179  | .1248 79985  |
| .4948  | .4748 55648  | .8800 63699  | .5152 38669  | .1249 31503  |
| .4949  | .4749 43652  | .8800 16209  | .5153 51165  | .1249 83032  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.4950 | 0.4750 31651 | 0.8799 68710 | 0.5154 63666 | 1.1250 34573 |
| .4951  | .4751 19646  | .8799 21202  | .5155 76172  | .1250 86125  |
| .4952  | .4752 07636  | .8798 73686  | .5156 88683  | .1251 37688  |
| .4953  | .4752 95621  | .8798 26161  | .5158 01199  | .1251 89263  |
| .4954  | .4753 83601  | .8797 78627  | .5159 13721  | .1252 40849  |
| 0.4955 | 0.4754 71576 | 0.8797 31084 | 0.5160 26248 | 1.1252 92446 |
| .4956  | .4755 59547  | .8796 83532  | .5161 38779  | .1253 44054  |
| .4957  | .4756 47513  | .8796 35972  | .5162 51316  | .1253 95673  |
| .4958  | .4757 35474  | .8795 88403  | .5163 63859  | .1254 47304  |
| .4959  | .4758 23431  | .8795 40825  | .5164 76406  | .1254 98946  |
| 0.4960 | 0.4759 11382 | 0.8794 93238 | 0.5165 88958 | 1.1255 50599 |
| .4961  | .4759 99329  | .8794 45643  | .5167 01516  | .1256 02264  |
| .4962  | .4760 87271  | .8793 98038  | .5168 14079  | .1256 53940  |
| .4963  | .4761 75209  | .8793 50425  | .5169 26647  | .1257 05627  |
| .4964  | .4762 63142  | .8793 02803  | .5170 39220  | .1257 57325  |
| 0.4965 | 0.4763 51069 | 0.8792 55173 | 0.5171 51798 | 1.1258 09035 |
| .4966  | .4764 38993  | .8792 07533  | .5172 64382  | .1258 60755  |
| .4967  | .4765 26911  | .8791 59885  | .5173 76970  | .1259 12488  |
| .4968  | .4766 14825  | .8791 12228  | .5174 89564  | .1259 64231  |
| .4969  | .4767 02733  | .8790 64562  | .5176 02163  | .1260 15985  |
| 0.4970 | 0.4767 90637 | 0.8790 16887 | 0.5177 14767 | 1.1260 67751 |
| .4971  | .4768 78537  | .8789 69204  | .5178 27377  | .1261 19528  |
| .4972  | .4769 66431  | .8789 21512  | .5179 39991  | .1261 71317  |
| .4973  | .4770 54321  | .8788 73810  | .5180 52611  | .1262 23116  |
| .4974  | .4771 42206  | .8788 26101  | .5181 65236  | .1262 74927  |
| 0.4975 | 0.4772 30086 | 0.8787 78382 | 0.5182 77866 | 1.1263 26749 |
| .4976  | .4773 17962  | .8787 30655  | .5183 90501  | .1263 78583  |
| .4977  | .4774 05832  | .8786 82918  | .5185 03142  | .1264 30428  |
| .4978  | .4774 93698  | .8786 35173  | .5186 15787  | .1264 82283  |
| .4979  | .4775 81559  | .8785 87420  | .5187 28438  | .1265 34151  |
| 0.4980 | 0.4776 69416 | 0.8785 39657 | 0.5188 41094 | 1.1265 86029 |
| .4981  | .4777 57267  | .8784 91886  | .5189 53755  | .1266 37919  |
| .4982  | .4778 45114  | .8784 44106  | .5190 66422  | .1266 89820  |
| .4983  | .4779 32956  | .8783 96317  | .5191 79093  | .1267 41732  |
| .4984  | .4780 20793  | .8783 48519  | .5192 91770  | .1267 93656  |
| 0.4985 | 0.4781 08626 | 0.8783 00713 | 0.5194 04452 | 1.1268 45591 |
| .4986  | .4781 96454  | .8782 52897  | .5195 17139  | .1268 97537  |
| .4987  | .4782 84276  | .8782 05073  | .5196 29832  | .1269 49494  |
| .4988  | .4783 72095  | .8781 57241  | .5197 42529  | .1270 01463  |
| .4989  | .4784 59908  | .8781 09399  | .5198 55232  | .1270 53442  |
| 0.4990 | 0.4785 47716 | 0.8780 61549 | 0.5199 67940 | 1.1271 05434 |
| .4991  | .4786 35520  | .8780 13689  | .5200 80653  | .1271 57436  |
| .4992  | .4787 23319  | .8779 65821  | .5201 93371  | .1272 09450  |
| .4993  | .4788 11113  | .8779 17945  | .5203 06095  | .1272 61475  |
| .4994  | .4788 98903  | .8778 70059  | .5204 18824  | .1273 13511  |
| 0.4995 | 0.4789 86687 | 0.8778 22165 | 0.5205 31558 | 1.1273 65558 |
| .4996  | .4790 74467  | .8777 74282  | .5206 44297  | .1274 17617  |
| .4997  | .4791 62242  | .8777 26350  | .5207 57041  | .1274 69687  |
| .4998  | .4792 50013  | .8776 78429  | .5208 69791  | .1275 21769  |
| .4999  | .4793 37778  | .8776 30500  | .5209 82546  | .1275 73861  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.5000 | 0.4794 25539 | 0.8775 82562 | 0.5210 95305 | 1.1276 25965 |
| .5001  | .4795 13294  | .8775 34615  | .5212 08071  | .1276 78080  |
| .5002  | .4796 01046  | .8774 86659  | .5213 20841  | .1277 30207  |
| .5003  | .4796 88792  | .8774 38695  | .5214 33617  | .1277 82345  |
| .5004  | .4797 76533  | .8773 90721  | .5215 46396  | .1278 34494  |
| 0.5005 | 0.4798 64270 | 0.8773 42739 | 0.5216 59184 | 1.1278 86654 |
| .5006  | .4799 52002  | .8772 94749  | .5217 71975  | .1279 38825  |
| .5007  | .4800 39729  | .8772 46749  | .5218 84771  | .1279 91008  |
| .5008  | .4801 27451  | .8771 98741  | .5219 97573  | .1280 43202  |
| .5009  | .4802 15169  | .8771 50724  | .5221 10380  | .1280 95408  |
| 0.5010 | 0.4803 02881 | 0.8771 02698 | 0.5222 23192 | 1.1281 47624 |
| .5011  | .4803 90589  | .8770 54663  | .5223 36010  | .1281 99852  |
| .5012  | .4804 78292  | .8770 06620  | .5224 48832  | .1282 52092  |
| .5013  | .4805 65990  | .8769 58567  | .5225 61660  | .1283 04342  |
| .5014  | .4806 53684  | .8769 10506  | .5226 74493  | .1283 56604  |
| 0.5015 | 0.4807 41373 | 0.8768 62437 | 0.5227 87331 | 1.1284 08877 |
| .5016  | .4808 29056  | .8768 14358  | .5229 00175  | .1284 61161  |
| .5017  | .4809 16735  | .8767 66271  | .5230 13024  | .1285 13457  |
| .5018  | .4810 04410  | .8767 18175  | .5231 25878  | .1285 65764  |
| .5019  | .4810 92079  | .8766 70070  | .5232 38737  | .1286 18082  |
| 0.5020 | 0.4811 79744 | 0.8766 21956 | 0.5233 51601 | 1.1286 70412 |
| .5021  | .4812 67403  | .8765 73834  | .5234 64471  | .1287 22753  |
| .5022  | .4813 55058  | .8765 25703  | .5235 77346  | .1287 75105  |
| .5023  | .4814 42709  | .8764 77563  | .5236 90226  | .1288 27468  |
| .5024  | .4815 30354  | .8764 29414  | .5238 03111  | .1288 79843  |
| 0.5025 | 0.4816 17995 | 0.8763 81257 | 0.5239 16002 | 1.1289 32229 |
| .5026  | .4817 05630  | .8763 33091  | .5240 28896  | .1289 84626  |
| .5027  | .4817 93261  | .8762 84916  | .5241 41799  | .1290 37034  |
| .5028  | .4818 80887  | .8762 36732  | .5242 54705  | .1290 89454  |
| .5029  | .4819 68508  | .8761 88540  | .5243 67617  | .1291 41885  |
| 0.5030 | 0.4820 56125 | 0.8761 40338 | 0.5244 80533 | 1.1291 94328 |
| .5031  | .4821 43737  | .8760 92128  | .5245 93455  | .1292 46781  |
| .5032  | .4822 31343  | .8760 43910  | .5247 06383  | .1292 99246  |
| .5033  | .4823 18945  | .8759 95682  | .5248 19315  | .1293 51723  |
| .5034  | .4824 06542  | .8759 47446  | .5249 32253  | .1294 04210  |
| 0.5035 | 0.4824 94135 | 0.8758 99201 | 0.5250 45196 | 1.1294 56709 |
| .5036  | .4825 81722  | .8758 50947  | .5251 58144  | .1295 09219  |
| .5037  | .4826 69305  | .8758 02684  | .5252 71098  | .1295 61741  |
| .5038  | .4827 56883  | .8757 54413  | .5253 84057  | .1296 14274  |
| .5039  | .4828 44456  | .8757 06133  | .5254 97021  | .1296 66818  |
| 0.5040 | 0.4829 32024 | 0.8756 57844 | 0.5256 09990 | 1.1297 19373 |
| .5041  | .4830 19587  | .8756 09547  | .5257 22965  | .1297 71940  |
| .5042  | .4831 07146  | .8755 61240  | .5258 35945  | .1298 24518  |
| .5043  | .4831 94700  | .8755 12925  | .5259 48930  | .1298 77107  |
| .5044  | .4832 82249  | .8754 64601  | .5260 61920  | .1299 29707  |
| 0.5045 | 0.4833 69793 | 0.8754 16269 | 0.5261 74916 | 1.1299 82319 |
| .5046  | .4834 57332  | .8753 67927  | .5262 87916  | .1300 34942  |
| .5047  | .4835 44866  | .8753 19577  | .5264 00923  | .1300 87577  |
| .5048  | .4836 32396  | .8752 71218  | .5265 13934  | .1301 40223  |
| .5049  | .4837 19920  | .8752 22851  | .5266 26951  | .1301 92880  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.5050 | 0.4838 07440 | 0.8751 74474 | 0.5267 39973 | 1.1302 45548 |
| .5051  | .4838 94955  | .8751 26089  | .5268 53000  | .1302 98228  |
| .5052  | .4839 82466  | .8750 77695  | .5269 66032  | .1303 50919  |
| .5053  | .4840 69971  | .8750 29293  | .5270 79070  | .1304 03621  |
| .5054  | .4841 57471  | .8749 80881  | .5271 92113  | .1304 56334  |
| 0.5055 | 0.4842 44967 | 0.8749 32461 | 0.5273 05161 | 1.1305 09059 |
| .5056  | .4843 32458  | .8748 84032  | .5274 18215  | .1305 61795  |
| .5057  | .4844 19944  | .8748 35595  | .5275 31274  | .1306 14543  |
| .5058  | .4845 07425  | .8747 87148  | .5276 44338  | .1306 67302  |
| .5059  | .4845 94901  | .8747 38693  | .5277 57407  | .1307 20072  |
| 0.5060 | 0.4846 82373 | 0.8746 90229 | 0.5278 70482 | 1.1307 72853 |
| .5061  | .4847 69839  | .8746 41757  | .5279 83562  | .1308 25646  |
| .5062  | .4848 57301  | .8745 93276  | .5280 96647  | .1308 78450  |
| .5063  | .4849 44758  | .8745 44785  | .5282 09737  | .1309 31265  |
| .5064  | .4850 32210  | .8744 96287  | .5283 22833  | .1309 84092  |
| 0.5065 | 0.4851 19657 | 0.8744 47779 | 0.5284 35934 | 1.1310 36930 |
| .5066  | .4852 07100  | .8743 99263  | .5285 49040  | .1310 89779  |
| .5067  | .4852 94537  | .8743 50738  | .5286 62152  | .1311 42640  |
| .5068  | .4853 81970  | .8743 02204  | .5287 75269  | .1311 95511  |
| .5069  | .4854 69398  | .8742 53661  | .5288 88301  | .1312 48395  |
| 0.5070 | 0.4855 56820 | 0.8742 05110 | 0.5290 01519 | 1.1313 01289 |
| .5071  | .4856 44239  | .8741 56550  | .5291 14651  | .1313 54195  |
| .5072  | .4857 31652  | .8741 07981  | .5292 27789  | .1314 07112  |
| .5073  | .4858 19060  | .8740 59403  | .5293 40933  | .1314 60040  |
| .5074  | .4859 06464  | .8740 10817  | .5294 54081  | .1315 12980  |
| 0.5075 | 0.4859 93862 | 0.8739 62222 | 0.5295 67235 | 1.1315 65931 |
| .5076  | .4860 81256  | .8739 13618  | .5296 80395  | .1316 18894  |
| .5077  | .4861 68645  | .8738 65006  | .5297 93559  | .1316 71867  |
| .5078  | .4862 56029  | .8738 16385  | .5299 06729  | .1317 24852  |
| .5079  | .4863 43408  | .8737 67755  | .5300 19904  | .1317 77849  |
| 0.5080 | 0.4864 30783 | 0.8737 19116 | 0.5301 33085 | 1.1318 30856 |
| .5081  | .4865 18152  | .8736 70469  | .5302 46270  | .1318 83875  |
| .5082  | .4866 05517  | .8736 21812  | .5303 59461  | .1319 36906  |
| .5083  | .4866 92877  | .8735 73147  | .5304 72658  | .1319 89947  |
| .5084  | .4867 80231  | .8735 24474  | .5305 85859  | .1320 43000  |
| 0.5085 | 0.4868 67581 | 0.8734 75791 | 0.5306 99066 | 1.1320 96064 |
| .5086  | .4869 54927  | .8734 27100  | .5308 12279  | .1321 49140  |
| .5087  | .4870 42267  | .8733 78400  | .5309 25496  | .1322 02227  |
| .5088  | .4871 29602  | .8733 29692  | .5310 38719  | .1322 55325  |
| .5089  | .4872 16933  | .8732 80974  | .5311 51947  | .1323 08435  |
| 0.5090 | 0.4873 04258 | 0.8732 32248 | 0.5312 65181 | 1.1323 61555 |
| .5091  | .4873 91579  | .8731 83514  | .5313 78420  | .1324 14688  |
| .5092  | .4874 78895  | .8731 34770  | .5314 91664  | .1324 67831  |
| .5093  | .4875 66206  | .8730 86018  | .5316 04913  | .1325 20988  |
| .5094  | .4876 53512  | .8730 37257  | .5317 18168  | .1325 74152  |
| 0.5095 | 0.4877 40814 | 0.8729 88487 | 0.5318 31428 | 1.1326 27330 |
| .5096  | .4878 28110  | .8729 39709  | .5319 44693  | .1326 80518  |
| .5097  | .4879 15402  | .8728 90922  | .5320 57964  | .1327 33719  |
| .5098  | .4880 02688  | .8728 42126  | .5321 71240  | .1327 86930  |
| .5099  | .4880 89970  | .8727 93321  | .5322 84521  | .1328 40153  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.5100 | 0.4881 77247 | 0.8727 44508 | 0.5323 97808 | 1.1328 93387 |
| .5101  | .4882 64519  | .8726 95686  | .5325 11100  | .1329 46632  |
| .5102  | .4883 51786  | .8726 46855  | .5326 24397  | .1329 99889  |
| .5103  | .4884 39048  | .8725 98015  | .5327 37700  | .1330 53157  |
| .5104  | .4885 26306  | .8725 49167  | .5328 51008  | .1331 06437  |
| 0.5105 | 0.4886 13558 | 0.8725 00310 | 0.5329 64321 | 1.1331 59727 |
| .5106  | .4887 00806  | .8724 51444  | .5330 77640  | .1332 13030  |
| .5107  | .4887 88048  | .8724 02570  | .5331 90964  | .1332 66343  |
| .5108  | .4888 75286  | .8723 53687  | .5333 04293  | .1333 19668  |
| .5109  | .4889 62519  | .8723 04795  | .5334 17628  | .1333 73004  |
| 0.5110 | 0.4890 49747 | 0.8722 55894 | 0.5335 30968 | 1.1334 26351 |
| .5111  | .4891 36970  | .8722 06985  | .5336 44313  | .1334 79710  |
| .5112  | .4892 24189  | .8721 58067  | .5337 57664  | .1335 33080  |
| .5113  | .4893 11402  | .8721 09140  | .5338 71020  | .1335 86462  |
| .5114  | .4893 98610  | .8720 60204  | .5339 84381  | .1336 39854  |
| 0.5115 | 0.4894 85814 | 0.8720 11260 | 0.5340 97748 | 1.1336 93258 |
| .5116  | .4895 73013  | .8719 62307  | .5342 11120  | .1337 46674  |
| .5117  | .4896 60206  | .8719 13346  | .5343 24497  | .1338 00101  |
| .5118  | .4897 47395  | .8718 64375  | .5344 37880  | .1338 53539  |
| .5119  | .4898 34579  | .8718 15396  | .5345 51268  | .1339 06988  |
| 0.5120 | 0.4899 21758 | 0.8717 66408 | 0.5346 64661 | 1.1339 60449 |
| .5121  | .4900 08933  | .8717 17412  | .5347 78060  | .1340 13921  |
| .5122  | .4900 96102  | .8716 68407  | .5348 91464  | .1340 67405  |
| .5123  | .4901 83266  | .8716 19393  | .5350 04873  | .1341 20899  |
| .5124  | .4902 70426  | .8715 70370  | .5351 18288  | .1341 74406  |
| 0.5125 | 0.4903 57580 | 0.8715 21338 | 0.5352 31708 | 1.1342 27923 |
| .5126  | .4904 44730  | .8714 72298  | .5353 45134  | .1342 81452  |
| .5127  | .4905 31875  | .8714 23250  | .5354 58565  | .1343 34992  |
| .5128  | .4906 19015  | .8713 74192  | .5355 72001  | .1343 88544  |
| .5129  | .4907 06150  | .8713 25126  | .5356 85442  | .1344 42107  |
| 0.5130 | 0.4907 93280 | 0.8712 76051 | 0.5357 98889 | 1.1344 95681 |
| .5131  | .4908 80405  | .8712 26967  | .5359 12341  | .1345 49266  |
| .5132  | .4909 67525  | .8711 77875  | .5360 25799  | .1346 02863  |
| .5133  | .4910 54640  | .8711 28774  | .5361 39262  | .1346 56471  |
| .5134  | .4911 41751  | .8710 79664  | .5362 52730  | .1347 10091  |
| 0.5135 | 0.4912 28856 | 0.8710 30545 | 0.5363 66204 | 1.1347 63722 |
| .5136  | .4913 15957  | .8709 81418  | .5364 79683  | .1348 17364  |
| .5137  | .4914 03053  | .8709 32282  | .5365 93167  | .1348 71018  |
| .5138  | .4914 90143  | .8708 83137  | .5367 06657  | .1349 24683  |
| .5139  | .4915 77229  | .8708 33984  | .5368 20152  | .1349 78359  |
| 0.5140 | 0.4916 64310 | 0.8707 84822 | 0.5369 33653 | 1.1350 32047 |
| .5141  | .4917 51386  | .8707 35651  | .5370 47159  | .1350 85746  |
| .5142  | .4918 38457  | .8706 86472  | .5371 60670  | .1351 39456  |
| .5143  | .4919 25524  | .8706 37283  | .5372 74187  | .1351 93178  |
| .5144  | .4920 12585  | .8705 88087  | .5373 87709  | .1352 46911  |
| 0.5145 | 0.4920 99641 | 0.8705 38881 | 0.5375 01236 | 1.1353 00656 |
| .5146  | .4921 86693  | .8704 89667  | .5376 14769  | .1353 54411  |
| .5147  | .4922 73739  | .8704 40444  | .5377 28307  | .1354 08179  |
| .5148  | .4923 60781  | .8703 91212  | .5378 41850  | .1354 61957  |
| .5149  | .4924 47817  | .8703 41971  | .5379 55399  | .1355 15747  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.5150 | 0.4925 34849 | 0.8702 92722 | 0.5380 68954 | 1.1355 68548 |
| .5151  | .4926 21876  | .8702 43464  | .5381 82513  | .1356 23361  |
| .5152  | .4927 08898  | .8701 94198  | .5382 96078  | .1356 77185  |
| .5153  | .4927 95915  | .8701 44923  | .5384 09649  | .1357 31020  |
| .5154  | .4928 82927  | .8700 95639  | .5385 23224  | .1357 84867  |
| 0.5155 | 0.4929 69934 | 0.8700 46346 | 0.5386 36806 | 1.1358 38725 |
| .5156  | .4930 56936  | .8699 97045  | .5387 50392  | .1358 92594  |
| .5157  | .4931 43933  | .8699 47735  | .5388 63984  | .1359 46475  |
| .5158  | .4932 30926  | .8698 98416  | .5389 77582  | .1360 00367  |
| .5159  | .4933 17913  | .8698 49089  | .5390 91184  | .1360 54270  |
| 0.5160 | 0.4934 04895 | 0.8697 99752 | 0.5392 04792 | 1.1361 08185 |
| .5161  | .4934 91873  | .8697 50408  | .5393 18406  | .1361 62111  |
| .5162  | .4935 78845  | .8697 01054  | .5394 32025  | .1362 16049  |
| .5163  | .4936 65813  | .8696 51692  | .5395 45649  | .1362 69998  |
| .5164  | .4937 52776  | .8696 02321  | .5396 59279  | .1363 23958  |
| 0.5165 | 0.4938 39734 | 0.8695 52941 | 0.5397 72914 | 1.1363 77929 |
| .5166  | .4939 26686  | .8695 03553  | .5398 86554  | .1364 31912  |
| .5167  | .4940 13634  | .8694 54156  | .5400 00200  | .1364 85907  |
| .5168  | .4941 00577  | .8694 04750  | .5401 13852  | .1365 39912  |
| .5169  | .4941 87515  | .8693 55336  | .5402 27508  | .1365 93930  |
| 0.5170 | 0.4942 74448 | 0.8693 05913 | 0.5403 41170 | 1.1366 47958 |
| .5171  | .4943 61376  | .8692 56481  | .5404 54838  | .1367 01998  |
| .5172  | .4944 48300  | .8692 07040  | .5405 68511  | .1367 56049  |
| .5173  | .4945 35218  | .8691 57591  | .5406 82189  | .1368 10111  |
| .5174  | .4946 22131  | .8691 08133  | .5407 95873  | .1368 64185  |
| 0.5175 | 0.4947 09039 | 0.8690 58667 | 0.5409 09562 | 1.1369 18271 |
| .5176  | .4947 95943  | .8690 09192  | .5410 23256  | .1369 72367  |
| .5177  | .4948 82841  | .8689 59708  | .5411 36956  | .1370 26475  |
| .5178  | .4949 69735  | .8689 10215  | .5412 50662  | .1370 80595  |
| .5179  | .4950 56623  | .8688 60714  | .5413 64372  | .1371 34725  |
| 0.5180 | 0.4951 43507 | 0.8688 11204 | 0.5414 78089 | 1.1371 88868 |
| .5181  | .4952 30386  | .8687 61685  | .5415 91810  | .1372 43021  |
| .5182  | .4953 17259  | .8687 12158  | .5417 05537  | .1372 97186  |
| .5183  | .4954 04128  | .8686 62622  | .5418 19270  | .1373 51362  |
| .5184  | .4954 90992  | .8686 13077  | .5419 33008  | .1374 05550  |
| 0.5185 | 0.4955 77851 | 0.8685 63523 | 0.5420 46751 | 1.1374 59749 |
| .5186  | .4956 64704  | .8685 13961  | .5421 60499  | .1375 13959  |
| .5187  | .4957 51553  | .8684 64390  | .5422 74254  | .1375 68181  |
| .5188  | .4958 38397  | .8684 14811  | .5423 88013  | .1376 22414  |
| .5189  | .4959 25236  | .8683 65223  | .5425 01778  | .1376 76658  |
| 0.5190 | 0.4960 12070 | 0.8683 15626 | 0.5426 15548 | 1.1377 30914 |
| .5191  | .4960 98899  | .8682 66020  | .5427 29324  | .1377 85182  |
| .5192  | .4961 85724  | .8682 16406  | .5428 43105  | .1378 39460  |
| .5193  | .4962 72543  | .8681 66783  | .5429 56892  | .1378 93750  |
| .5194  | .4963 59357  | .8681 17151  | .5430 70684  | .1379 48052  |
| 0.5195 | 0.4964 46166 | 0.8680 67511 | 0.5431 84482 | 1.1380 02364 |
| .5196  | .4965 32970  | .8680 17862  | .5432 98285  | .1380 56688  |
| .5197  | .4966 19770  | .8679 68205  | .5434 12093  | .1381 11024  |
| .5198  | .4967 06564  | .8679 18538  | .5435 25907  | .1381 65371  |
| .5199  | .4967 93353  | .8678 68863  | .5436 39726  | .1382 19729  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.5200 | 0.4968 80138 | 0.8672 19180 | 0.5437 53551 | 1.1382 74099 |
| .5201  | .4969 66917  | .8677 69487  | .5438 67381  | .1383 28480  |
| .5202  | .4970 53692  | .8677 19786  | .5439 81217  | .1383 82872  |
| .5203  | .4971 40461  | .8676 70077  | .5440 95058  | .1384 37276  |
| .5204  | .4972 27226  | .8676 20358  | .5442 08904  | .1384 91691  |
| 0.5205 | 0.4973 13985 | 0.8675 70631 | 0.5443 22756 | 1.1385 46118 |
| .5206  | .4974 00740  | .8675 20895  | .5444 36613  | .1386 00556  |
| .5207  | .4974 87489  | .8674 71151  | .5445 50476  | .1386 55005  |
| .5208  | .4975 74234  | .8674 21398  | .5446 64344  | .1387 09466  |
| .5209  | .4976 60974  | .8673 71636  | .5447 78218  | .1387 63938  |
| 0.5210 | 0.4977 47708 | 0.8673 21866 | 0.5448 92097 | 1.1388 18422 |
| .5211  | .4978 34438  | .8672 72087  | .5450 05982  | .1388 72917  |
| .5212  | .4979 21163  | .8672 22299  | .5451 19872  | .1389 27423  |
| .5213  | .4980 07883  | .8671 72502  | .5452 33767  | .1389 81940  |
| .5214  | .4980 94597  | .8671 22697  | .5453 47668  | .1390 36470  |
| 0.5215 | 0.4981 81307 | 0.8670 72883 | 0.5454 61574 | 1.1390 91010 |
| .5216  | .4982 68012  | .8670 23061  | .5455 75486  | .1391 45562  |
| .5217  | .4983 54712  | .8669 73230  | .5456 89403  | .1392 00125  |
| .5218  | .4984 41407  | .8669 23390  | .5458 03326  | .1392 54700  |
| .5219  | .4985 28096  | .8668 73542  | .5459 17254  | .1393 09286  |
| 0.5220 | 0.4986 14781 | 0.8668 23684 | 0.5460 31188 | 1.1393 63883 |
| .5221  | .4987 01461  | .8667 73819  | .5461 45127  | .1394 18492  |
| .5222  | .4987 88136  | .8667 23944  | .5462 59072  | .1394 73112  |
| .5223  | .4988 74806  | .8666 74061  | .5463 73022  | .1395 27744  |
| .5224  | .4989 61471  | .8666 24169  | .5464 86977  | .1395 82387  |
| 0.5225 | 0.4990 48131 | 0.8665 74269 | 0.5466 00938 | 1.1396 37041 |
| .5226  | .4991 34786  | .8665 24360  | .5467 14905  | .1396 91707  |
| .5227  | .4992 21436  | .8664 74442  | .5468 28877  | .1397 46384  |
| .5228  | .4993 08081  | .8664 24515  | .5469 42854  | .1398 01073  |
| .5229  | .4993 94721  | .8663 74580  | .5470 56837  | .1398 55773  |
| 0.5230 | 0.4994 81356 | 0.8663 24636 | 0.5471 70825 | 1.1399 10484 |
| .5231  | .4995 67985  | .8662 74684  | .5472 84819  | .1399 65207  |
| .5232  | .4996 54610  | .8662 24723  | .5473 98818  | .1400 19941  |
| .5233  | .4997 41230  | .8661 74753  | .5475 12823  | .1400 74687  |
| .5234  | .4998 27845  | .8661 24774  | .5476 26833  | .1401 29444  |
| 0.5235 | 0.4999 14455 | 0.8660 74787 | 0.5477 40849 | 1.1401 84212 |
| .5236  | .5000 01060  | .8660 24792  | .5478 54870  | .1402 38992  |
| .5237  | .5000 87660  | .8659 74787  | .5479 68897  | .1402 93783  |
| .5238  | .5001 74255  | .8659 24774  | .5480 82929  | .1403 48586  |
| .5239  | .5002 60845  | .8658 74752  | .5481 96966  | .1404 03400  |
| 0.5240 | 0.5003 47430 | 0.8658 24722 | 0.5483 11009 | 1.1404 58225 |
| .5241  | .5004 34010  | .8657 74683  | .5484 25058  | .1405 13062  |
| .5242  | .5005 20585  | .8657 24635  | .5485 39112  | .1405 67910  |
| .5243  | .5006 07155  | .8656 74579  | .5486 53172  | .1406 22770  |
| .5244  | .5006 93720  | .8656 24514  | .5487 67237  | .1406 77641  |
| 0.5245 | 0.5007 80280 | 0.8655 74440 | 0.5488 81307 | 1.1407 32523 |
| .5246  | .5008 66835  | .8655 24358  | .5489 95383  | .1407 87417  |
| .5247  | .5009 53385  | .8654 74267  | .5491 09465  | .1408 42322  |
| .5248  | .5010 39930  | .8654 24167  | .5492 23552  | .1408 97239  |
| .5249  | .5011 26470  | .8653 74059  | .5493 37644  | .1409 52167  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.5250 | 0.5012 13005 | 0.8653 23942 | 0.5404 51742 | 1.1410 07106 |
| .5251  | .5012 99535  | .8652 73816  | .5405 65845  | .1410 02057  |
| .5252  | .5013 86059  | .8652 23682  | .5406 70954  | .1411 17020  |
| .5253  | .5014 72579  | .8651 73539  | .5407 24069  | .1411 71993  |
| .5254  | .5015 59094  | .8651 23387  | .5409 09189  | .1412 26978  |
| 0.5255 | 0.5016 45604 | 0.8650 73227 | 0.5500 22314 | 1.1412 81975 |
| .5256  | .5017 32109  | .8650 23058  | .5501 36445  | .1413 36983  |
| .5257  | .5018 18609  | .8649 72881  | .5502 50582  | .1413 92002  |
| .5258  | .5019 05103  | .8649 22694  | .5503 64724  | .1414 47033  |
| .5259  | .5019 91593  | .8648 72500  | .5504 78871  | .1415 02075  |
| 0.5260 | 0.5020 78078 | 0.8648 22296 | 0.5505 93024 | 1.1415 57129 |
| .5261  | .5021 64558  | .8647 72084  | .5507 07182  | .1416 12194  |
| .5262  | .5022 51032  | .8647 21863  | .5508 21346  | .1416 67270  |
| .5263  | .5023 37502  | .8646 71634  | .5509 35516  | .1417 22358  |
| .5264  | .5024 23967  | .8646 21396  | .5510 49691  | .1417 77457  |
| 0.5265 | 0.5025 10426 | 0.8645 71149 | 0.5511 63871 | 1.1418 32568 |
| .5266  | .5025 96881  | .8645 20894  | .5512 78057  | .1418 87690  |
| .5267  | .5026 83330  | .8644 70630  | .5513 92249  | .1419 42824  |
| .5268  | .5027 69775  | .8644 20357  | .5515 06446  | .1419 97968  |
| .5269  | .5028 56214  | .8643 70076  | .5516 20649  | .1420 53125  |
| 0.5270 | 0.5029 42649 | 0.8643 19786 | 0.5517 34857 | 1.1421 08293 |
| .5271  | .5030 29078  | .8642 69487  | .5518 49070  | .1421 63472  |
| .5272  | .5031 15503  | .8642 19180  | .5519 63289  | .1422 18662  |
| .5273  | .5032 01922  | .8641 68864  | .5520 77514  | .1422 73864  |
| .5274  | .5032 88337  | .8641 18539  | .5521 91744  | .1423 29078  |
| 0.5275 | 0.5033 74746 | 0.8640 68206 | 0.5523 05980 | 1.1423 84303 |
| .5276  | .5034 61150  | .8640 17864  | .5524 20221  | .1424 39539  |
| .5277  | .5035 47550  | .8639 67514  | .5525 34468  | .1424 94787  |
| .5278  | .5036 33944  | .8639 17155  | .5526 48720  | .1425 50046  |
| .5279  | .5037 20333  | .8638 66787  | .5527 62978  | .1426 05317  |
| 0.5280 | 0.5038 06717 | 0.8638 16411 | 0.5528 77241 | 1.1426 60599 |
| .5281  | .5038 93096  | .8637 66026  | .5529 91510  | .1427 15892  |
| .5282  | .5039 79470  | .8637 15632  | .5531 05784  | .1427 71197  |
| .5283  | .5040 65839  | .8636 65230  | .5532 20064  | .1428 26513  |
| .5284  | .5041 52203  | .8636 14819  | .5533 34349  | .1428 81841  |
| 0.5285 | 0.5042 38562 | 0.8635 64400 | 0.5534 48640 | 1.1429 37180 |
| .5286  | .5043 24916  | .8635 13971  | .5535 62937  | .1429 92531  |
| .5287  | .5044 11265  | .8634 63535  | .5536 77239  | .1430 47893  |
| .5288  | .5044 97609  | .8634 13089  | .5537 91546  | .1431 03266  |
| .5289  | .5045 83948  | .8633 62635  | .5539 05860  | .1431 58651  |
| 0.5290 | 0.5046 70282 | 0.8633 12172 | 0.5540 20178 | 1.1432 14047 |
| .5291  | .5047 56610  | .8632 61701  | .5541 34502  | .1432 69455  |
| .5292  | .5048 42934  | .8632 11221  | .5542 48832  | .1433 24874  |
| .5293  | .5049 29252  | .8631 60732  | .5543 63167  | .1433 80305  |
| .5294  | .5050 15566  | .8631 10235  | .5544 77508  | .1434 35747  |
| 0.5295 | 0.5051 01874 | 0.8630 59729 | 0.5545 91855 | 1.1434 91200 |
| .5296  | .5051 88178  | .8630 09215  | .5547 06206  | .1435 46665  |
| .5297  | .5052 74476  | .8629 58692  | .5548 20564  | .1436 02142  |
| .5298  | .5053 60770  | .8629 08160  | .5549 34927  | .1436 57629  |
| .5299  | .5054 47058  | .8628 57620  | .5550 49295  | .1437 13128  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.5300 | 0.5055 33341 | 0.8628 07071 | 0.5551 63669 | 1.1437 68639 |
| .5301  | .5056 19619  | .8627 56513  | .5552 78049  | .1438 24161  |
| .5302  | .5057 05893  | .8627 05947  | .5553 92434  | .1438 79695  |
| .5303  | .5057 92161  | .8626 55372  | .5555 06825  | .1439 35240  |
| .5304  | .5058 78424  | .8626 04788  | .5556 21221  | .1439 90796  |
| 0.5305 | 0.5059 64682 | 0.8625 54196 | 0.5557 35623 | 1.1440 46364 |
| .5306  | .5060 50934  | .8625 03595  | .5558 50031  | .1441 01943  |
| .5307  | .5061 37182  | .8624 52986  | .5559 64444  | .1441 57534  |
| .5308  | .5062 23425  | .8624 02368  | .5560 78862  | .1442 13136  |
| .5309  | .5063 09663  | .8623 51741  | .5561 93286  | .1442 68750  |
| 0.5310 | 0.5063 95895 | 0.8623 01106 | 0.5563 07716 | 1.1443 24375 |
| .5311  | .5064 82123  | .8622 50462  | .5564 22151  | .1443 80011  |
| .5312  | .5065 68345  | .8621 99809  | .5565 36592  | .1444 35659  |
| .5313  | .5066 54563  | .8621 49148  | .5566 51038  | .1444 91319  |
| .5314  | .5067 40775  | .8620 98479  | .5567 65490  | .1445 46989  |
| 0.5315 | 0.5068 26983 | 0.8620 47800 | 0.5568 79948 | 1.1446 02672 |
| .5316  | .5069 13185  | .8619 97113  | .5569 94411  | .1446 58365  |
| .5317  | .5069 99382  | .8619 46417  | .5571 08879  | .1447 14071  |
| .5318  | .5070 85574  | .8618 95713  | .5572 23353  | .1447 69787  |
| .5319  | .5071 71761  | .8618 45000  | .5573 37833  | .1448 25515  |
| 0.5320 | 0.5072 57943 | 0.8617 94279 | 0.5574 52319 | 1.1448 81255 |
| .5321  | .5073 44120  | .8617 43549  | .5575 66810  | .1449 37006  |
| .5322  | .5074 30292  | .8616 92810  | .5576 81306  | .1449 92768  |
| .5323  | .5075 16459  | .8616 42063  | .5577 95808  | .1450 48542  |
| .5324  | .5076 02620  | .8615 91307  | .5579 10316  | .1451 04327  |
| 0.5325 | 0.5076 88777 | 0.8615 40542 | 0.5580 24829 | 1.1451 60124 |
| .5326  | .5077 74928  | .8614 89769  | .5581 39348  | .1452 15932  |
| .5327  | .5078 61075  | .8614 38987  | .5582 53872  | .1452 71752  |
| .5328  | .5079 47216  | .8613 88197  | .5583 68402  | .1453 27583  |
| .5329  | .5080 33352  | .8613 37398  | .5584 82938  | .1453 83426  |
| 0.5330 | 0.5081 19484 | 0.8612 86590 | 0.5585 97479 | 1.1454 39280 |
| .5331  | .5082 05610  | .8612 35774  | .5587 12025  | .1454 95145  |
| .5332  | .5082 91731  | .8611 84949  | .5588 26578  | .1455 51022  |
| .5333  | .5083 77847  | .8611 34116  | .5589 41136  | .1456 06910  |
| .5334  | .5084 63958  | .8610 83273  | .5590 55699  | .1456 62810  |
| 0.5335 | 0.5085 50063 | 0.8610 32423 | 0.5591 70268 | 1.1457 18722 |
| .5336  | .5086 36164  | .8609 81563  | .5592 84843  | .1457 74644  |
| .5337  | .5087 22260  | .8609 30696  | .5593 99423  | .1458 30579  |
| .5338  | .5088 08350  | .8608 79819  | .5595 14009  | .1458 86524  |
| .5339  | .5088 94436  | .8608 28934  | .5596 28600  | .1459 42481  |
| 0.5340 | 0.5089 80516 | 0.8607 78040 | 0.5597 43198 | 1.1459 98450 |
| .5341  | .5090 66591  | .8607 27138  | .5598 57800  | .1460 54430  |
| .5342  | .5091 52661  | .8606 76227  | .5599 72408  | .1461 10421  |
| .5343  | .5092 38727  | .8606 25307  | .5600 87022  | .1461 66424  |
| .5344  | .5093 24787  | .8605 74379  | .5602 01642  | .1462 22439  |
| 0.5345 | 0.5094 10841 | 0.8605 23442 | 0.5603 16267 | 1.1462 78465 |
| .5346  | .5094 96891  | .8604 72497  | .5604 30897  | .1463 34502  |
| .5347  | .5095 82936  | .8604 21543  | .5605 45534  | .1463 90551  |
| .5348  | .5096 68976  | .8603 70580  | .5606 60176  | .1464 46611  |
| .5349  | .5097 55010  | .8603 19609  | .5607 74823  | .1465 02683  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.5350 | 0.5098 41039 | 0.8602 68629 | 0.5603 89476 | 1.1465 53766 |
| .5351  | .5099 27064  | .8602 17641  | .5610 04135  | .1466 14861  |
| .5352  | .5100 13083  | .8601 66644  | .5611 13799  | .1466 70967  |
| .5353  | .5100 99097  | .8601 15638  | .5612 33469  | .1467 27085  |
| .5354  | .5101 85106  | .8600 64624  | .5613 48144  | .1467 83214  |
| 0.5355 | 0.5102 71110 | 0.8600 13601 | 0.5614 62826 | 1.1468 39354 |
| .5356  | .5103 57109  | .8599 62570  | .5615 77512  | .1468 95506  |
| .5357  | .5104 43103  | .8599 11530  | .5616 92205  | .1469 51670  |
| .5358  | .5105 29091  | .8598 60481  | .5618 06903  | .1470 07845  |
| .5359  | .5106 15075  | .8598 09424  | .5619 21606  | .1470 64031  |
| 0.5360 | 0.5107 01053 | 0.8597 58358 | 0.5620 36315 | 1.1471 20229 |
| .5361  | .5107 87026  | .8597 07284  | .5621 51030  | .1471 76438  |
| .5362  | .5108 72994  | .8596 56201  | .5622 65751  | .1472 32659  |
| .5363  | .5109 58958  | .3596 05109  | .5623 80477  | .1472 88892  |
| .5364  | .5110 44915  | .8595 54009  | .5624 95209  | .1473 45135  |
| 0.5365 | 0.5111 30868 | 0.8595 02900 | 0.5626 09946 | 1.1474 01391 |
| .5366  | .5112 16816  | .8594 51783  | .5627 24689  | .1474 57657  |
| .5367  | .5113 02759  | .8594 00657  | .5628 39437  | .1475 13936  |
| .5368  | .5113 88696  | .8593 49522  | .5629 54182  | .1475 70225  |
| .5369  | .5114 74629  | .8592 98379  | .5630 68951  | .1476 26526  |
| 0.5370 | 0.5115 60556 | 0.8592 47227 | 0.5631 83717 | 1.1476 82839 |
| .5371  | .5116 46478  | .8591 96067  | .5632 98488  | .1477 39163  |
| .5372  | .5117 32395  | .8591 44898  | .5634 13265  | .1477 95499  |
| .5373  | .5118 18307  | .8590 93721  | .5635 28047  | .1478 51846  |
| .5374  | .5119 04214  | .8590 42534  | .5636 42835  | .1479 08204  |
| 0.5375 | 0.5119 90116 | 0.8589 91340 | 0.5637 57629 | 1.1479 64574 |
| .5376  | .5120 76012  | .8589 40136  | .5638 72428  | .1480 20956  |
| .5377  | .5121 61904  | .8588 88924  | .5639 87233  | .1480 77349  |
| .5378  | .5122 47790  | .8588 37704  | .5641 02043  | .1481 33753  |
| .5379  | .5123 33671  | .8587 86475  | .5642 16860  | .1481 90169  |
| 0.5380 | 0.5124 19547 | 0.8587 35237 | 0.5643 31682 | 1.1482 46597 |
| .5381  | .5125 05418  | .8586 83991  | .5644 46509  | .1483 03036  |
| .5382  | .5125 91284  | .8586 32736  | .5645 61342  | .1483 59486  |
| .5383  | .5126 77145  | .8585 81473  | .5646 76181  | .1484 15948  |
| .5384  | .5127 63000  | .8585 30201  | .5647 91025  | .1484 72421  |
| 0.5385 | 0.5128 48851 | 0.8584 78920 | 0.5649 05875 | 1.1485 28906 |
| .5386  | .5129 34696  | .8584 27631  | .5650 20731  | .1485 85402  |
| .5387  | .5130 20536  | .8583 76333  | .5651 35592  | .1486 41910  |
| .5388  | .5131 06371  | .8583 25027  | .5652 50459  | .1486 98430  |
| .5389  | .5131 92201  | .8582 73712  | .5653 65332  | .1487 54960  |
| 0.5390 | 0.5132 78026 | 0.8582 22388 | 0.5654 80210 | 1.1488 11503 |
| .5391  | .5133 63846  | .8581 71056  | .5655 95094  | .1488 68056  |
| .5392  | .5134 49680  | .8581 19716  | .5657 09984  | .1489 24622  |
| .5393  | .5135 35470  | .8580 68366  | .5658 24879  | .1489 81198  |
| .5394  | .5136 21274  | .8580 17009  | .5659 39780  | .1490 37787  |
| 0.5395 | 0.5137 07073 | 0.8579 65642 | 0.5660 54687 | 1.1490 94386 |
| .5396  | .5137 92867  | .8579 14267  | .5661 69599  | .1491 50998  |
| .5397  | .5138 78656  | .8578 62884  | .5662 84517  | .1492 07620  |
| .5398  | .5139 64440  | .8578 11491  | .5663 99441  | .1492 64254  |
| .5399  | .5140 50218  | .8577 60091  | .5665 14370  | .1493 20900  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.5400 | 0.5141 35992 | 0.8577 08681 | 0.5666 29305 | 1.1493 77557 |
| .5401  | .5142 21760  | .8576 57263  | .5667 44245  | .1494 34226  |
| .5402  | .5143 07523  | .8576 05837  | .5668 59192  | .1494 90906  |
| .5403  | .5143 93281  | .8575 54402  | .5669 74144  | .1495 47598  |
| .5404  | .5144 79034  | .8575 02958  | .5670 89101  | .1496 04301  |
| 0.5405 | 0.5145 64782 | 0.8574 51506 | 0.5672 04065 | 1.1496 61016 |
| .5406  | .5146 50524  | .8574 00045  | .5673 19033  | .1497 17742  |
| .5407  | .5147 36262  | .8573 48576  | .5674 34006  | .1497 74479  |
| .5408  | .5148 21994  | .8572 97098  | .5675 48988  | .1498 31229  |
| .5409  | .5149 07721  | .8572 45612  | .5676 63974  | .1498 87989  |
| 0.5410 | 0.5149 93443 | 0.8571 94117 | 0.5677 78966 | 1.1499 44761 |
| .5411  | .5150 79160  | .8571 42613  | .5678 93963  | .1500 01545  |
| .5412  | .5151 64872  | .8570 91101  | .5680 08966  | .1500 58340  |
| .5413  | .5152 50578  | .8570 39580  | .5681 23975  | .1501 15147  |
| .5414  | .5153 36280  | .8569 88051  | .5682 38989  | .1501 71965  |
| 0.5415 | 0.5154 21976 | 0.8569 36513 | 0.5683 54009 | 1.1502 28795 |
| .5416  | .5155 07667  | .8568 84966  | .5684 69035  | .1502 85636  |
| .5417  | .5155 93353  | .8568 33411  | .5685 84066  | .1503 42488  |
| .5418  | .5156 79034  | .8567 81848  | .5686 99104  | .1503 99353  |
| .5419  | .5157 64709  | .8567 30275  | .5688 14146  | .1504 56228  |
| 0.5420 | 0.5158 50380 | 0.8566 78695 | 0.5689 29195 | 1.1505 13115 |
| .5421  | .5159 36045  | .8566 27105  | .5690 44249  | .1505 70014  |
| .5422  | .5160 21705  | .8565 75507  | .5691 59300  | .1506 26924  |
| .5423  | .5161 07360  | .8565 23901  | .5692 74374  | .1506 83846  |
| .5424  | .5161 93010  | .8564 72286  | .5693 89446  | .1507 40779  |
| 0.5425 | 0.5162 78654 | 0.8564 20662 | 0.5695 04523 | 1.1507 97724 |
| .5426  | .5163 64294  | .8563 69030  | .5696 19605  | .1508 54680  |
| .5427  | .5164 49928  | .8563 17330  | .5697 34695  | .1509 11648  |
| .5428  | .5165 35557  | .8562 65740  | .5698 49787  | .1509 68627  |
| .5429  | .5166 21181  | .8562 14082  | .5699 64887  | .1510 25618  |
| 0.5430 | 0.5167 06800 | 0.8561 62416 | 0.5700 79993 | 1.1510 82620 |
| .5431  | .5167 92414  | .8561 10741  | .5701 95104  | .1511 39634  |
| .5432  | .5168 78022  | .8560 59058  | .5703 10221  | .1511 96659  |
| .5433  | .5169 63626  | .8560 07365  | .5704 25343  | .1512 53696  |
| .5434  | .5170 49224  | .8559 55665  | .5705 40471  | .1513 10744  |
| 0.5435 | 0.5171 34817 | 0.8559 03956 | 0.5706 55605 | 1.1513 67804 |
| .5436  | .5172 20405  | .8558 52238  | .5707 70745  | .1514 24875  |
| .5437  | .5173 05987  | .8558 00512  | .5708 85890  | .1514 81958  |
| .5438  | .5173 91565  | .8557 48777  | .5710 01041  | .1515 39052  |
| .5439  | .5174 77137  | .8556 97033  | .5711 16198  | .1515 96158  |
| 0.5440 | 0.5175 62704 | 0.8556 45281 | 0.5712 31360 | 1.1516 53276 |
| .5441  | .5176 48266  | .8555 93521  | .5713 46529  | .1517 10404  |
| .5442  | .5177 33823  | .8555 41752  | .5714 61703  | .1517 67545  |
| .5443  | .5178 19374  | .8554 89974  | .5715 76882  | .1518 24697  |
| .5444  | .5179 04921  | .8554 38188  | .5716 92067  | .1518 81860  |
| 0.5445 | 0.5179 90462 | 0.8553 86393 | 0.5718 07259 | 1.1519 39035 |
| .5446  | .5180 75998  | .8553 34590  | .5719 22455  | .1519 96222  |
| .5447  | .5181 61529  | .8552 82778  | .5720 37658  | .1520 53420  |
| .5448  | .5182 47055  | .8552 30957  | .5721 52866  | .1521 10629  |
| .5449  | .5183 32575  | .8551 79128  | .5722 68080  | .1521 67850  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.5450 | 0.5184 18091 | 0.8551 27291 | 0.5723 83300 | 1.1521 25083 |
| .5451  | .5185 03601  | .8550 75445  | .5724 98525  | .1522 82327  |
| .5452  | .5185 89106  | .8550 23590  | .5726 13756  | .1523 39583  |
| .5453  | .5186 74605  | .8549 71727  | .5727 28903  | .1523 96850  |
| .5454  | .5187 60100  | .8549 19855  | .5728 44235  | .1524 54128  |
| 0.5455 | 0.5188 45589 | 0.8548 67975 | 0.5729 59484 | 1.1525 11419 |
| .5456  | .5189 31074  | .8548 16086  | .5730 74738  | .1525 68720  |
| .5457  | .5190 16553  | .8547 64189  | .5731 89997  | .1526 26033  |
| .5458  | .5191 02026  | .8547 12283  | .5733 05263  | .1526 83358  |
| .5459  | .5191 87495  | .8546 60368  | .5734 20534  | .1527 40695  |
| 0.5460 | 0.5192 72958 | 0.8546 08445 | 0.5735 35811 | 1.1527 98042 |
| .5461  | .5193 58417  | .8545 56514  | .5736 51094  | .1528 55402  |
| .5462  | .5194 43870  | .8545 04574  | .5737 66382  | .1529 12773  |
| .5463  | .5195 29318  | .8544 52625  | .5738 81676  | .1529 70155  |
| .5464  | .5196 14760  | .8544 00668  | .5739 96976  | .1530 27549  |
| 0.5465 | 0.5197 00198 | 0.8543 48702 | 0.5741 12282 | 1.1530 84954 |
| ✓.5466 | .5197 85630  | .8542 96728  | .5742 27593  | .1531 42371  |
| .5467  | .5198 71057  | .8542 44745  | .5743 42910  | .1531 99800  |
| .5468  | .5199 56479  | .8541 92753  | .5744 58233  | .1532 57240  |
| .5469  | .5200 41896  | .8541 40753  | .5745 73562  | .1533 14692  |
| 0.5470 | 0.5201 27307 | 0.8540 88745 | 0.5746 88896 | 1.1533 72155 |
| .5471  | .5202 12713  | .8540 36728  | .5748 04236  | .1534 29629  |
| .5472  | .5202 98114  | .8539 84702  | .5749 19582  | .1534 87116  |
| .5473  | .5203 83510  | .8539 32668  | .5750 34933  | .1535 44613  |
| .5474  | .5204 68901  | .8538 80626  | .5751 50291  | .1536 02123  |
| 0.5475 | 0.5205 54286 | 0.8538 28575 | 0.5752 65654 | 1.1536 59643 |
| .5476  | .5206 39667  | .8537 76515  | .5753 81023  | .1537 17176  |
| .5477  | .5207 25042  | .8537 24447  | .5754 96397  | .1537 74720  |
| .5478  | .5208 10412  | .8536 72370  | .5756 11778  | .1538 32275  |
| .5479  | .5208 95776  | .8536 20285  | .5757 27164  | .1538 89842  |
| 0.5480 | 0.5209 81136 | 0.8535 68191 | 0.5758 42556 | 1.1539 47420 |
| .5481  | .5210 66490  | .8535 16088  | .5759 57953  | .1540 05010  |
| .5482  | .5211 51839  | .8534 63977  | .5760 73357  | .1540 62612  |
| .5483  | .5212 37183  | .8534 11858  | .5761 88766  | .1541 20225  |
| .5484  | .5213 22521  | .8533 59730  | .5763 04161  | .1541 77850  |
| 0.5485 | 0.5214 07855 | 0.8533 07594 | 0.5764 19601 | 1.1542 35486 |
| .5486  | .5214 93183  | .8532 55448  | .5765 35028  | .1542 93134  |
| .5487  | .5215 78506  | .8532 03295  | .5766 50460  | .1543 50793  |
| .5488  | .5216 63823  | .8531 51133  | .5767 65898  | .1544 08464  |
| .5489  | .5217 49136  | .8530 98962  | .5768 81342  | .1544 66146  |
| 0.5490 | 0.5218 34443 | 0.8530 46783 | 0.5769 96791 | 1.1545 23840 |
| .5491  | .5219 19745  | .8529 94595  | .5771 12246  | .1545 81545  |
| .5492  | .5220 05042  | .8529 42399  | .5772 27708  | .1546 39262  |
| .5493  | .5220 90334  | .8528 90194  | .5773 43174  | .1546 96991  |
| .5494  | .5221 75620  | .8528 37981  | .5774 58647  | .1547 54731  |
| 0.5495 | 0.5222 60901 | 0.8527 85759 | 0.5775 74125 | 1.1548 12483 |
| .5496  | .5223 46177  | .8527 33529  | .5776 89609  | .1548 70246  |
| .5497  | .5224 31448  | .8526 81290  | .5778 05099  | .1549 28021  |
| .5498  | .5225 16714  | .8526 29042  | .5779 20595  | .1549 85807  |
| .5499  | .5226 01974  | .8525 76787  | .5780 36096  | .1550 43605  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.5500 | 0.5226 87229 | 0.8525 24522 | 0.5781 51604 | 1.1551 01414 |
| .5501  | .5227 72479  | .8524 72249  | .5782 67117  | .1551 59235  |
| .5502  | .5228 57723  | .8524 19968  | .5783 82636  | .1552 17068  |
| .5503  | .5229 42963  | .8523 67678  | .5784 98160  | .1552 74912  |
| .5504  | .5230 28197  | .8523 15379  | .5786 13691  | .1553 32767  |
| 0.5505 | 0.5231 13426 | 0.8522 63072 | 0.5787 29227 | 1.1553 90634 |
| .5506  | .5231 98650  | .8522 10756  | .5788 44769  | .1554 48513  |
| .5507  | .5232 83868  | .9521 58432  | .5789 60316  | .1555 06403  |
| .5508  | .5233 69081  | .8521 06100  | .5790 75870  | .1555 64305  |
| .5509  | .5234 54289  | .8520 53758  | .5791 91429  | .1556 22218  |
| 0.5510 | 0.5235 39492 | 0.8520 01409 | 0.5793 06994 | 1.1556 80143 |
| .5511  | .5236 24689  | .8519 49050  | .5794 22565  | .1557 38080  |
| .5512  | .5237 09882  | .8518 96684  | .5795 38142  | .1557 96028  |
| .5513  | .5237 95069  | .8518 44308  | .5796 53725  | .1558 53987  |
| .5514  | .5238 80251  | .8517 91925  | .5797 69313  | .1559 11969  |
| 0.5515 | 0.5239 65427 | 0.8517 39532 | 0.5798 84907 | 1.1559 69941 |
| .5516  | .5240 50599  | .8516 87132  | .5800 00507  | .1560 27936  |
| .5517  | .5241 35765  | .8516 34722  | .5801 16113  | .1560 85941  |
| .5518  | .5242 20925  | .8515 82304  | .5802 31724  | .1561 43959  |
| .5519  | .5243 06081  | .8515 29878  | .5803 47341  | .1562 01988  |
| 0.5520 | 0.5243 91231 | 0.8514 77443 | 0.5804 62964 | 1.1562 60028 |
| .5521  | .5244 76377  | .8514 25000  | .5805 78593  | .1563 18080  |
| .5522  | .5245 61516  | .8513 72548  | .5806 94228  | .1563 76144  |
| .5523  | .5246 46651  | .8513 20088  | .5808 09869  | .1564 34219  |
| .5524  | .5247 31780  | .8512 67619  | .5809 25515  | .1564 92306  |
| 0.5525 | 0.5248 16905 | 0.8512 15141 | 0.5810 41167 | 1.1565 50404 |
| .5526  | .5249 02024  | .8511 62655  | .5811 56825  | .1566 08514  |
| .5527  | .5249 87137  | .8511 10161  | .5812 72489  | .1566 66636  |
| .5528  | .5250 72246  | .8510 57658  | .5813 88158  | .1567 24769  |
| .5529  | .5251 57349  | .8510 05146  | .5815 03834  | .1567 82913  |
| 0.5530 | 0.5252 42447 | 0.8509 52626 | 0.5816 19515 | 1.1568 41069 |
| .5531  | .5253 27539  | .8509 00098  | .5817 35202  | .1568 99237  |
| .5532  | .5254 12627  | .8508 47561  | .5818 50895  | .1569 57417  |
| .5533  | .5254 97709  | .8507 95015  | .5819 66593  | .1570 15607  |
| .5534  | .5255 82786  | .8507 42461  | .5820 82298  | .1570 73810  |
| 0.5535 | 0.5256 67857 | 0.8506 89899 | 0.5821 98008 | 1.1571 32024 |
| .5536  | .5257 52924  | .8506 37328  | .5823 13724  | .1571 90249  |
| .5537  | .5258 37985  | .8505 84748  | .5824 29446  | .1572 48487  |
| .5538  | .5259 23041  | .8505 32160  | .5825 45174  | .1573 06735  |
| .5539  | .5260 08091  | .8504 79564  | .5826 60908  | .1573 64996  |
| 0.5540 | 0.5260 93136 | 0.8504 26959 | 0.5827 76647 | 1.1574 23268 |
| .5541  | .5261 78176  | .8503 74345  | .5828 92392  | .1574 81551  |
| .5542  | .5262 63211  | .8503 21723  | .5830 08143  | .1575 39846  |
| .5543  | .5263 48241  | .8502 69092  | .5831 23900  | .1575 98153  |
| .5544  | .5264 33265  | .8502 16453  | .5832 39663  | .1576 56471  |
| 0.5545 | 0.5265 18284 | 0.8501 63806 | 0.5833 55431 | 1.1577 14801 |
| .5546  | .5266 03298  | .8501 11150  | .5834 71206  | .1577 73142  |
| .5547  | .5266 88306  | .8500 58485  | .5835 86986  | .1578 31495  |
| .5548  | .5267 73310  | .8500 05812  | .5837 02772  | .1578 89859  |
| .5549  | .5268 58308  | .8499 53130  | .5838 18564  | .1579 48235  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.5550 | 0.5269 43300 | 0.8499 00440 | 0.5839 34362 | 1.1580 06623 |
| .5551  | .5270 28288  | .8498 47742  | .5840 50165  | .1580 65022  |
| .5552  | .5271 13270  | .8497 95035  | .5841 65975  | .1581 23433  |
| .5553  | .5271 98247  | .8497 42319  | .5842 81790  | .1581 81855  |
| .5554  | .5272 83218  | .8496 89595  | .5843 97611  | .1582 40289  |
| 0.5555 | 0.5273 68185 | 0.8496 36862 | 0.5845 13438 | 1.1582 98735 |
| .5556  | .5274 53146  | .8495 84121  | .5846 29271  | .1583 57192  |
| .5557  | .5275 38101  | .8495 31372  | .5847 45110  | .1584 15661  |
| .5558  | .5276 23052  | .8494 78614  | .5848 60954  | .1584 74141  |
| .5559  | .5277 07997  | .8494 25847  | .5849 76804  | .1585 32635  |
| 0.5560 | 0.5277 92937 | 0.8493 73072 | 0.5850 92661 | 1.1585 91136 |
| .5561  | .5278 77872  | .8493 20289  | .5852 08523  | .1586 49652  |
| .5562  | .5279 62801  | .8492 67497  | .5853 24391  | .1587 08178  |
| .5563  | .5280 47725  | .8492 14696  | .5854 40264  | .1587 66716  |
| .5564  | .5281 32644  | .8491 61887  | .5855 56144  | .1588 25266  |
| 0.5565 | 0.5282 17558 | 0.8491 09069 | 0.5856 72029 | 1.1588 83828 |
| .5566  | .5283 02466  | .8490 56243  | .5857 87921  | .1589 42401  |
| .5567  | .5283 87369  | .8490 03409  | .5859 03818  | .1590 00985  |
| .5568  | .5284 72267  | .8489 50566  | .5860 19721  | .1590 59781  |
| .5569  | .5285 57159  | .8488 97715  | .5861 35630  | .1591 18189  |
| 0.5570 | 0.5286 42046 | 0.8488 44855 | 0.5862 51544 | 1.1591 76809 |
| .5571  | .5287 26928  | .8487 91986  | .5863 67405  | .1592 35439  |
| .5572  | .5288 11804  | .8487 39109  | .5864 83392  | .1592 94082  |
| .5573  | .5288 96676  | .8486 86224  | .5865 99324  | .1593 52736  |
| .5574  | .5289 81542  | .8486 33330  | .5867 15262  | .1594 11402  |
| 0.5575 | 0.5290 66402 | 0.8485 80427 | 0.5868 31206 | 1.1594 70079 |
| .5576  | .5291 51258  | .8485 27517  | .5869 47156  | .1595 28768  |
| .5577  | .5292 36108  | .8484 74597  | .5870 63112  | .1595 87469  |
| .5578  | .5293 20953  | .8484 21669  | .5871 79074  | .1596 46181  |
| .5579  | .5294 05792  | .8483 68733  | .5872 95041  | .1597 04904  |
| 0.5580 | 0.5294 90626 | 0.8483 15788 | 0.5874 11015 | 1.1597 63640 |
| .5581  | .5295 75455  | .8482 62835  | .5875 26994  | .1598 22387  |
| .5582  | .5296 60279  | .8482 09873  | .5876 42979  | .1598 81145  |
| .5583  | .5297 45097  | .8481 56903  | .5877 58970  | .1599 39915  |
| .5584  | .5298 29910  | .8481 03924  | .5878 74967  | .1599 98697  |
| 0.5585 | 0.5299 14718 | 0.8480 50937 | 0.5879 90970 | 1.1600 57490 |
| .5586  | .5299 99521  | .8479 97941  | .5881 06979  | .1601 16295  |
| .5587  | .5300 84318  | .8479 44937  | .5882 22993  | .1601 75112  |
| .5588  | .5301 69110  | .8478 91924  | .5883 39014  | .1602 33940  |
| .5589  | .5302 53896  | .8478 38903  | .5884 55040  | .1602 92779  |
| 0.5590 | 0.5303 38677 | 0.8477 85873 | 0.5885 71072 | 1.1603 51631 |
| .5591  | .5304 23453  | .8477 32835  | .5886 87110  | .1604 10494  |
| .5592  | .5305 08224  | .8476 79789  | .5888 03154  | .1604 69368  |
| .5593  | .5305 92989  | .8476 26734  | .5889 19204  | .1605 28254  |
| .5594  | .5306 77749  | .8475 73670  | .5890 35260  | .1605 87152  |
| 0.5595 | 0.5307 62504 | 0.8475 20598 | 0.5891 51322 | 1.1606 46061 |
| .5596  | .5308 47253  | .8474 67518  | .5892 67389  | .1607 04982  |
| .5597  | .5309 31997  | .8474 14429  | .5893 83463  | .1607 63915  |
| .5598  | .5310 16736  | .8473 61331  | .5894 99542  | .1608 22859  |
| .5599  | .5311 01470  | .8473 08225  | .5896 15627  | .1608 81815  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.5600 | 0.5311 86198 | 0.8472 55111 | 0.5897 31718 | 1.1609 40782 |
| .5601  | .5312 70921  | .8472 01988  | .5898 47815  | .1609 99761  |
| .5602  | .5313 55638  | .8471 48857  | .5899 63918  | .1610 58752  |
| .5603  | .5314 40351  | .8470 95717  | .5900 80027  | .1611 17754  |
| .5604  | .5315 25057  | .8470 42569  | .5901 96142  | .1611 76768  |
| 0.5605 | 0.5316 09759 | 0.8469 89412 | 0.5903 12262 | 1.1612 35793 |
| .5606  | .5316 94455  | .8469 36247  | .5904 28389  | .1612 94830  |
| .5607  | .5317 79146  | .8468 83073  | .5905 44521  | .1613 53879  |
| .5608  | .5318 63832  | .8468 29891  | .5906 60660  | .1614 12939  |
| .5609  | .5319 48512  | .8467 76700  | .5907 76804  | .1614 72011  |
| 0.5610 | 0.5320 33187 | 0.8467 23501 | 0.5908 92954 | 1.1615 31094 |
| .5611  | .5321 17857  | .8466 70294  | .5910 09110  | .1615 90189  |
| .5612  | .5322 02521  | .8466 17078  | .5911 25272  | .1616 49296  |
| .5613  | .5322 87180  | .8465 63853  | .5912 41440  | .1617 08415  |
| .5614  | .5323 71834  | .8465 10620  | .5913 57614  | .1617 67544  |
| 0.5615 | 0.5324 56483 | 0.8464 57379 | 0.5914 73793 | 1.1618 26686 |
| .5616  | .5325 41126  | .8464 04129  | .5915 89979  | .1618 85839  |
| .5617  | .5326 25763  | .8463 50871  | .5917 06171  | .1619 45004  |
| .5618  | .5327 10396  | .8462 97604  | .5918 22368  | .1620 04180  |
| .5619  | .5327 95023  | .8462 44329  | .5919 38572  | .1620 63369  |
| 0.5620 | 0.5328 79645 | 0.8461 91045 | 0.5920 54781 | 1.1621 22568 |
| .5621  | .5329 64261  | .8461 37753  | .5921 70996  | .1621 81779  |
| .5622  | .5330 48872  | .8460 84452  | .5922 87217  | .1622 41002  |
| .5623  | .5331 33478  | .8460 31143  | .5924 03444  | .1623 00237  |
| .5624  | .5332 18078  | .8459 77825  | .5925 19677  | .1623 59483  |
| 0.5625 | 0.5333 02674 | 0.8459 24499 | 0.5926 35916 | 1.1624 18741 |
| .5626  | .5333 87263  | .8458 71165  | .5927 52161  | .1624 78010  |
| .5627  | .5334 71848  | .8458 17822  | .5928 68412  | .1625 37291  |
| .5628  | .5335 56427  | .8457 64470  | .5929 84668  | .1625 96584  |
| .5629  | .5336 41001  | .8457 11110  | .5931 00931  | .1626 55888  |
| 0.5630 | 0.5337 25569 | 0.8456 57742 | 0.5932 17200 | 1.1627 15204 |
| .5631  | .5338 10132  | .8456 04365  | .5933 33474  | .1627 74532  |
| .5632  | .5338 94690  | .8455 50980  | .5934 49754  | .1628 33871  |
| .5633  | .5339 79242  | .8454 97586  | .5935 66041  | .1628 93222  |
| .5634  | .5340 63789  | .8454 44184  | .5936 82333  | .1629 52584  |
| 0.5635 | 0.5341 48331 | 0.8453 90774 | 0.5937 98631 | 1.1630 11958 |
| .5636  | .5342 32868  | .8453 37355  | .5939 14936  | .1630 71344  |
| .5637  | .5343 17399  | .8452 83927  | .5940 31246  | .1631 30741  |
| .5638  | .5344 01924  | .8452 30491  | .5941 47562  | .1631 90150  |
| .5639  | .5344 86445  | .8451 77047  | .5942 63884  | .1632 49571  |
| 0.5640 | 0.5345 70960 | 0.8451 23594 | 0.5943 80212 | 1.1633 09003 |
| .5641  | .5346 55470  | .8450 70133  | .5944 96545  | .1633 68447  |
| .5642  | .5347 39974  | .8450 16663  | .5946 12885  | .1634 27902  |
| .5643  | .5348 24473  | .8449 63185  | .5947 29231  | .1634 87369  |
| .5644  | .5349 08967  | .8449 09698  | .5948 45583  | .1635 46848  |
| 0.5645 | 0.5349 93455 | 0.8448 56203 | 0.5949 61940 | 1.1636 06338 |
| .5646  | .5350 77938  | .8448 02699  | .5950 78304  | .1636 65840  |
| .5647  | .5351 62415  | .8447 49187  | .5951 94674  | .1637 25354  |
| .5648  | .5352 46888  | .8446 95667  | .5953 11049  | .1637 84879  |
| .5649  | .5353 31354  | .8446 42138  | .5954 27431  | .1638 44416  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.5650 | 0.5354 15816 | 0.8445 88600 | 0.5955 43310 | 1.1630 03365 |
| .5651  | .5355 00272  | .8445 35055  | .5955 00311  | .1630 53525  |
| .5652  | .5355 84723  | .8444 81500  | .5957 76611  | .1640 33097  |
| .5653  | .5356 69168  | .8444 27938  | .5958 53016  | .1640 82680  |
| .5654  | .5357 53609  | .8443 74367  | .5960 09437  | .1641 43275  |
| 0.5655 | 0.5358 38043 | 0.8443 20787 | 0.5961 35844 | 1.1642 01882 |
| .5656  | .5359 22473  | .8442 67199  | .5962 42368  | .1642 51101  |
| .5657  | .5360 06897  | .8442 13602  | .5963 58697  | .1643 31131  |
| .5658  | .5360 91315  | .8441 59998  | .5964 75132  | .1643 80772  |
| .5659  | .5361 75729  | .8441 06384  | .5965 91573  | .1644 40426  |
| 0.5660 | 0.5362 60137 | 0.8440 52762 | 0.5967 08020 | 1.1645 00091 |
| .5661  | .5363 44539  | .8439 99132  | .5968 24473  | .1645 59767  |
| .5662  | .5364 28937  | .8439 45493  | .5969 40932  | .1646 19456  |
| .5663  | .5365 13328  | .8438 91846  | .5970 57397  | .1646 79155  |
| .5664  | .5365 97715  | .8438 38191  | .5971 73868  | .1647 38867  |
| 0.5665 | 0.5366 82096 | 0.8437 84527 | 0.5972 90345 | 1.1647 98590 |
| .5666  | .5367 66472  | .8437 30854  | .5974 06827  | .1648 58325  |
| .5667  | .5368 50842  | .8436 77174  | .5975 23316  | .1649 18072  |
| .5668  | .5369 35207  | .8436 23484  | .5976 39811  | .1649 77830  |
| .5669  | .5370 19567  | .8435 69787  | .5977 56312  | .1650 37600  |
| 0.5670 | 0.5371 03921 | 0.8435 16080 | 0.5978 72819 | 1.1650 97381 |
| .5671  | .5371 88270  | .8434 62366  | .5979 89331  | .1651 57174  |
| .5672  | .5372 72614  | .8434 08643  | .5981 05850  | .1652 16979  |
| .5673  | .5373 56952  | .8433 54911  | .5982 22375  | .1652 76795  |
| .5674  | .5374 41285  | .8433 01171  | .5983 38905  | .1653 36623  |
| 0.5675 | 0.5375 25612 | 0.8432 47423 | 0.5984 55442 | 1.1653 96463 |
| .5676  | .5376 09934  | .8431 93666  | .5985 71985  | .1654 56314  |
| .5677  | .5376 94251  | .8431 39901  | .5986 88533  | .1655 16177  |
| .5678  | .5377 78562  | .8430 86127  | .5988 05088  | .1655 76052  |
| .5679  | .5378 62868  | .8430 32345  | .5989 21648  | .1656 35938  |
| 0.5680 | 0.5379 47169 | 0.8429 78555 | 0.5990 38215 | 1.1656 95836 |
| .5681  | .5380 31464  | .8429 24756  | .5991 54788  | .1657 55746  |
| .5682  | .5381 15754  | .8428 70948  | .5992 71366  | .1658 15667  |
| .5683  | .5382 00038  | .8428 17133  | .5993 87951  | .1659 75600  |
| .5684  | .5382 84317  | .8427 63308  | .5995 04541  | .1659 35545  |
| 0.5685 | 0.5383 68591 | 0.8427 09476 | 0.5996 21138 | 1.1659 95501 |
| .5686  | .5384 52859  | .8426 55635  | .5997 37740  | .1660 55469  |
| .5687  | .5385 37122  | .8426 01785  | .5998 54349  | .1661 15449  |
| .5688  | .5386 21379  | .8425 47927  | .5999 70964  | .1661 75440  |
| .5689  | .5387 05631  | .8424 94061  | .6000 87584  | .1662 35443  |
| 0.5690 | 0.5387 89878 | 0.8424 40186 | 0.6002 04211 | 1.1662 95458 |
| .5691  | .5388 74119  | .8423 86303  | .6003 20843  | .1663 55484  |
| .5692  | .5389 58355  | .8423 32411  | .6004 37482  | .1664 15522  |
| .5693  | .5390 42586  | .8422 78511  | .6005 54126  | .1664 75571  |
| .5694  | .5391 26811  | .8422 24603  | .6006 70777  | .1665 35633  |
| 0.5695 | 0.5392 11031 | 0.8421 70686 | 0.6007 87433 | 1.1665 95706 |
| .5696  | .5392 95245  | .8421 16761  | .6009 04096  | .1666 55790  |
| .5697  | .5393 79454  | .8420 62827  | .6010 20765  | .1667 15886  |
| .5698  | .5394 63658  | .8420 08885  | .6011 37439  | .1667 75994  |
| .5699  | .5395 47856  | .8419 54934  | .6012 54120  | .1668 36114  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.5700 | 0.5396 32049 | 0.8419 00975 | 0.6013 70806 | 1.1668 96245 |
| .5701  | .5397 16236  | .8418 47008  | .6014 87499  | .1669 56388  |
| .5702  | .5398 00418  | .8417 93032  | .6016 04198  | .1670 16543  |
| .5703  | .5398 84595  | .8417 39048  | .6017 20902  | .1670 76709  |
| .5704  | .5399 68766  | .8416 85055  | .6018 37613  | .1671 36887  |
| 0.5705 | 0.5400 52932 | 0.8416 31054 | 0.6019 54330 | 1.1671 97076 |
| .5706  | .5401 37092  | .8415 77044  | .6020 71052  | .1672 57278  |
| .5707  | .5402 21247  | .8415 23026  | .6021 87781  | .1673 17491  |
| .5708  | .5403 05397  | .8414 69000  | .6023 04516  | .1673 77715  |
| .5709  | .5403 89541  | .8414 14965  | .6024 21257  | .1674 37951  |
| 0.5710 | 0.5404 73680 | 0.8413 60922 | 0.6025 38003 | 1.1674 98199 |
| .5711  | .5405 57813  | .8413 06871  | .6026 54756  | .1675 58459  |
| .5712  | .5406 41941  | .8412 52811  | .6027 71515  | .1676 18730  |
| .5713  | .5407 26064  | .8411 98742  | .6028 88280  | .1676 79013  |
| .5714  | .5408 10181  | .8411 44665  | .6030 05051  | .1677 39308  |
| 0.5715 | 0.5408 94293 | 0.8410 90580 | 0.6031 21828 | 1.1677 99614 |
| .5716  | .5409 78399  | .8410 36487  | .6032 38611  | .1678 59932  |
| .5717  | .5410 62500  | .8409 82385  | .6033 55400  | .1679 20262  |
| .5718  | .5411 46595  | .8409 28274  | .6034 72195  | .1679 80603  |
| .5719  | .5412 30686  | .8408 74155  | .6035 88996  | .1680 40957  |
| 0.5720 | 0.5413 14770 | 0.8408 20028 | 0.6037 05803 | 1.1681 01321 |
| .5721  | .5413 98850  | .8407 65892  | .6038 22616  | .1681 61698  |
| .5722  | .5414 82923  | .8407 11748  | .6039 39435  | .1682 22086  |
| .5723  | .5415 66992  | .8406 57596  | .6040 56261  | .1682 82486  |
| .5724  | .5416 51055  | .8406 03435  | .6041 73092  | .1683 42897  |
| 0.5725 | 0.5417 35113 | 0.8405 49266 | 0.6042 89929 | 1.1684 03320 |
| .5726  | .5418 19165  | .8404 95088  | .6044 06773  | .1684 63755  |
| .5727  | .5419 03212  | .8404 40902  | .6045 23622  | .1685 24202  |
| .5728  | .5419 87253  | .8403 86707  | .6046 40477  | .1685 84660  |
| .5729  | .5420 71289  | .8403 32504  | .6047 57339  | .1686 45130  |
| 0.5730 | 0.5421 55320 | 0.8402 78293 | 0.6048 74207 | 1.1687 05611 |
| .5731  | .5422 39345  | .8402 24073  | .6049 91080  | .1687 66104  |
| .5732  | .5423 23364  | .8401 69845  | .6051 07960  | .1688 26609  |
| .5733  | .5424 07379  | .8401 15608  | .6052 24845  | .1688 87126  |
| .5734  | .5424 91387  | .8400 61364  | .6053 41737  | .1689 47654  |
| 0.5735 | 0.5425 75391 | 0.8400 07110 | 0.6054 58635 | 1.1690 08194 |
| .5736  | .5426 59389  | .8399 52848  | .6055 75539  | .1690 68746  |
| .5737  | .5427 43381  | .8398 98578  | .6056 92449  | .1691 29310  |
| .5738  | .5428 27369  | .8398 44300  | .6058 09365  | .1691 89885  |
| .5739  | .5429 11350  | .8397 90013  | .6059 26287  | .1692 50471  |
| 0.5740 | 0.5429 95327 | 0.8397 35718 | 0.6060 43215 | 1.1693 11070 |
| .5741  | .5430 79297  | .8396 81414  | .6061 60149  | .1693 71680  |
| .5742  | .5431 63263  | .8396 27102  | .6062 77089  | .1694 32302  |
| .5743  | .5432 47223  | .8395 72781  | .6063 94035  | .1694 92935  |
| .5744  | .5433 31177  | .8395 18452  | .6065 10988  | .1695 53581  |
| 0.5745 | 0.5434 15127 | 0.8394 64115 | 0.6066 27946 | 1.1696 14238 |
| .5746  | .5434 99070  | .8394 09769  | .6067 44911  | .1696 74906  |
| .5747  | .5435 83009  | .8393 55415  | .6068 61881  | .1697 35587  |
| .5748  | .5436 66941  | .8393 01053  | .6069 78858  | .1697 96279  |
| .5749  | .5437 50869  | .8392 46682  | .6070 95840  | .1698 56982  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 0.5750 | 0.5438 34791 | 0.8391 92302 | 0.6072 12922 | 1.1699 17698 |
| .5751  | .5439 18707  | .8391 37915  | .6073 29824  | .1699 78425  |
| .5752  | .5440 02618  | .8390 83519  | .6074 46825  | .1700 39164  |
| .5753  | .5440 86524  | .8390 29114  | .6075 63832  | .1700 92914  |
| .5754  | .5441 70424  | .8389 74701  | .6076 80845  | .1701 60677  |
| 0.5755 | 0.5442 54319 | 0.8389 20280 | 0.6077 97864 | 1.1702 21451 |
| .5756  | .5443 38208  | .8388 65851  | .6079 14880  | .1702 82236  |
| .5757  | .5444 22092  | .8388 11412  | .6080 31820  | .1703 43034  |
| .5758  | .5445 05970  | .8387 56966  | .6081 48958  | .1704 03843  |
| .5759  | .5445 89843  | .8387 02511  | .6082 66001  | .1704 64663  |
| 0.5760 | 0.5446 73711 | 0.8386 48048 | 0.6083 83051 | 1.1705 25496 |
| .5761  | .5447 57573  | .8385 93577  | .6085 00106  | .1705 86340  |
| .5762  | .5448 41430  | .8385 39097  | .6086 17168  | .1706 47196  |
| .5763  | .5449 25281  | .8384 84608  | .6087 34236  | .1707 08063  |
| .5764  | .5450 09127  | .8384 30112  | .6088 51309  | .1707 68943  |
| 0.5765 | 0.5450 92967 | 0.8383 75606 | 0.6089 68389 | 1.1708 29834 |
| .5766  | .5451 76802  | .8383 21093  | .6090 85475  | .1708 90736  |
| .5767  | .5452 60631  | .8382 66571  | .6092 02568  | .1709 51651  |
| .5768  | .5453 44455  | .8382 12041  | .6093 19666  | .1710 12577  |
| .5769  | .5454 28273  | .8381 57502  | .6094 36770  | .1710 73515  |
| 0.5770 | 0.5455 12087 | 0.8381 02955 | 0.6095 53880 | 1.1711 34464 |
| .5771  | .5455 95894  | .8380 48400  | .6096 70997  | .1711 95425  |
| .5772  | .5456 79696  | .8379 93836  | .6097 88120  | .1712 56398  |
| .5773  | .5457 63493  | .8379 39264  | .6099 05248  | .1713 17383  |
| .5774  | .5458 47284  | .8378 84683  | .6100 22383  | .1713 78379  |
| 0.5775 | 0.5459 31070 | 0.8378 30094 | 0.6101 39524 | 1.1714 39388 |
| .5776  | .5460 14850  | .8377 75497  | .6102 56671  | .1715 00407  |
| .5777  | .5460 98625  | .8377 20891  | .6103 73824  | .1715 61439  |
| .5778  | .5461 82394  | .8376 66277  | .6104 90983  | .1716 22482  |
| .5779  | .5462 66158  | .8376 11655  | .6106 08148  | .1716 83537  |
| 0.5780 | 0.5463 49917 | 0.8375 57024 | 0.6107 25320 | 1.1717 44604 |
| .5781  | .5464 33670  | .8375 02385  | .6108 42497  | .1718 05682  |
| .5782  | .5465 17417  | .8374 47737  | .6109 59681  | .1718 66772  |
| .5783  | .5466 01159  | .8373 93081  | .6110 76871  | .1719 27874  |
| .5784  | .5466 84896  | .8373 38417  | .6111 94067  | .1719 88988  |
| 0.5785 | 0.5467 68627 | 0.8372 83744 | 0.6113 11269 | 1.1720 50113 |
| .5786  | .5468 52352  | .8372 29063  | .6114 28477  | .1721 11250  |
| .5787  | .5469 36073  | .8371 74374  | .6115 45691  | .1721 72399  |
| .5788  | .5470 19787  | .8371 19676  | .6116 62911  | .1722 33559  |
| .5789  | .5471 03497  | .8370 64970  | .6117 80138  | .1722 94731  |
| 0.5790 | 0.5471 87200 | 0.8370 10256 | 0.6118 97370 | 1.1723 55915 |
| .5791  | .5472 70899  | .8369 55533  | .6120 14609  | .1724 17111  |
| .5792  | .5473 54591  | .8369 00801  | .6121 31853  | .1724 78318  |
| .5793  | .5474 38279  | .8368 46062  | .6122 49104  | .1725 39537  |
| .5794  | .5475 21961  | .8367 91314  | .6123 66361  | .1726 00768  |
| 0.5795 | 0.5476 05637 | 0.8367 36557 | 0.6124 83625 | 1.1726 62010 |
| .5796  | .5476 89308  | .8366 81793  | .6126 00894  | .1727 23264  |
| .5797  | .5477 72973  | .8366 27019  | .6127 18169  | .1727 84530  |
| .5798  | .5478 56633  | .8365 72238  | .6128 35451  | .1728 45808  |
| .5799  | .5479 40288  | .8365 17448  | .6129 52738  | .1729 07098  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.5800 | 0.5480 23937 | 0.8364 62650 | 0.6130 70032 | 1.1729 68399 |
| .5801  | .5481 07580  | .8364 07843  | .6131 87332  | .1730 29712  |
| .5802  | .5481 91218  | .8363 53028  | .6133 04638  | .1730 91036  |
| .5803  | .5482 74851  | .8362 98205  | .6134 21950  | .1731 52372  |
| .5804  | .5483 58478  | .8362 43373  | .6135 39269  | .1732 13721  |
| 0.5805 | 0.5484 42100 | 0.8361 88533 | 0.6136 56593 | 1.1732 75080 |
| .5806  | .5485 25716  | .8361 33685  | .6137 73924  | .1733 36452  |
| .5807  | .5486 09326  | .8360 78828  | .6138 91260  | .1733 97835  |
| .5808  | .5486 92931  | .8360 23963  | .6140 08603  | .1734 59230  |
| .5809  | .5487 76531  | .8359 69090  | .6141 25952  | .1735 20637  |
| 0.5810 | 0.5488 60125 | 0.8359 14208 | 0.6142 43307 | 1.1735 82055 |
| .5811  | .5489 43714  | .8358 59318  | .6143 60668  | .1736 43485  |
| .5812  | .5490 27297  | .8358 04419  | .6144 78036  | .1737 04927  |
| .5813  | .5491 10875  | .8357 49512  | .6145 95409  | .1737 66381  |
| .5814  | .5491 94447  | .8356 94597  | .6147 12789  | .1738 27846  |
| 0.5815 | 0.5492 78014 | 0.8356 39673 | 0.6148 30175 | 1.1738 89324 |
| .5816  | .5493 61575  | .8355 84741  | .6149 47567  | .1739 50813  |
| .5817  | .5494 45131  | .8355 29801  | .6150 64965  | .1740 12313  |
| .5818  | .5495 28681  | .8354 74852  | .6151 82370  | .1740 73826  |
| .5819  | .5496 12226  | .8354 19895  | .6152 99780  | .1741 35350  |
| 0.5820 | 0.5496 95765 | 0.8353 64930 | 0.6154 17197 | 1.1741 96885 |
| .5821  | .5497 79299  | .8353 09956  | .6155 34619  | .1742 58433  |
| .5822  | .5498 62827  | .8352 54974  | .6156 52048  | .1743 19992  |
| .5823  | .5499 46350  | .8351 99984  | .6157 69483  | .1743 81563  |
| .5824  | .5500 29867  | .8351 44985  | .6158 86925  | .1744 43146  |
| 0.5825 | 0.5501 13379 | 0.8350 89978 | 0.6160 04372 | 1.1745 04741 |
| .5826  | .5501 96885  | .8350 34962  | .6161 21826  | .1746 66347  |
| .5827  | .5502 80386  | .8349 79938  | .6162 39285  | .1746 27965  |
| .5828  | .5503 63881  | .8349 24906  | .6163 56751  | .1746 89595  |
| .5829  | .5504 47371  | .8348 69865  | .6164 74223  | .1747 51237  |
| 0.5830 | 0.5505 30855 | 0.8348 14816 | 0.6165 91701 | 1.1748 12890 |
| .5831  | .5506 14334  | .8347 59759  | .6167 09186  | .1748 74555  |
| .5832  | .5506 97807  | .8347 04694  | .6168 26676  | .1749 36232  |
| .5833  | .5507 81275  | .8346 49620  | .6169 44173  | .1749 97920  |
| .5834  | .5508 64737  | .8345 94537  | .6170 61676  | .1750 59621  |
| 0.5835 | 0.5509 48193 | 0.8345 39447 | 0.6171 79185 | 1.1751 21333 |
| .5836  | .5510 31645  | .8344 84348  | .6172 96700  | .1751 83056  |
| .5837  | .5511 15090  | .8344 29240  | .6174 14222  | .1752 44792  |
| .5838  | .5511 98530  | .8343 74125  | .6175 31749  | .1753 06539  |
| .5839  | .5512 81965  | .8343 19001  | .6176 49283  | .1753 68298  |
| 0.5840 | 0.5513 65394 | 0.8342 63868 | 0.6177 66823 | 1.1754 30069 |
| .5841  | .5514 48818  | .8342 08728  | .6178 84369  | .1754 91852  |
| .5842  | .5515 32236  | .8341 53579  | .6180 01921  | .1755 53646  |
| .5843  | .5516 15649  | .8340 98421  | .6181 19480  | .1756 15452  |
| .5844  | .5516 99056  | .8340 43255  | .6182 37044  | .1756 77270  |
| 0.5845 | 0.5517 82457 | 0.8339 88081 | 0.6183 54615 | 1.1757 39099 |
| .5846  | .5518 65853  | .8339 32899  | .6184 72192  | .1758 00941  |
| .5847  | .5519 49244  | .8338 77708  | .6185 89775  | .1758 62794  |
| .5848  | .5520 32629  | .8338 22509  | .6187 07365  | .1759 24659  |
| .5849  | .5521 16008  | .8337 67302  | .6188 24960  | .1759 86535  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.5850 | 0.5521 99382 | 0.8337 12086 | 0.6189 42562 | 1.1760 48424 |
| .5851  | .5522 82751  | .8336 56862  | .6190 60170  | .1761 10324  |
| .5852  | .5523 66114  | .8336 01629  | .6191 77784  | .1761 72236  |
| .5853  | .5524 49471  | .8335 46389  | .6192 95404  | .1762 34159  |
| .5854  | .5525 32823  | .8334 91139  | .6194 13031  | .1762 96095  |
| 0.5855 | 0.5526 16169 | 0.8334 35882 | 0.6195 30664 | 1.1763 58042 |
| .5856  | .5526 99510  | .8333 80616  | .6196 48302  | .1764 20001  |
| .5857  | .5527 82845  | .8333 25342  | .6197 65948  | .1764 81972  |
| .5858  | .5528 66175  | .8332 70060  | .6198 83509  | .1765 43954  |
| .5859  | .5529 49499  | .8332 14769  | .6200 01256  | .1766 05948  |
| 0.5860 | 0.5530 32818 | 0.8331 59470 | 0.6201 18920 | 1.1766 67954 |
| .5861  | .5531 16131  | .8331 04162  | .6202 36590  | .1767 29972  |
| .5862  | .5531 99439  | .8330 48847  | .6203 54266  | .1767 92002  |
| .5863  | .5532 82741  | .8329 93522  | .6204 71948  | .1768 54043  |
| .5864  | .5533 66038  | .8329 38190  | .6205 89637  | .1769 16096  |
| 0.5865 | 0.5534 49329 | 0.8328 82849 | 0.6207 07332 | 1.1769 78161 |
| .5866  | .5535 32614  | .8328 27500  | .6208 25032  | .1770 40238  |
| .5867  | .5536 15894  | .8327 72143  | .6209 42740  | .1771 02326  |
| .5868  | .5536 99169  | .8327 16777  | .6210 60453  | .1771 64426  |
| .5869  | .5537 82438  | .8326 61403  | .6211 78172  | .1772 26538  |
| 0.5870 | 0.5538 65701 | 0.8326 06020 | 0.6212 95898 | 1.1772 88662 |
| .5871  | .5539 48959  | .8325 50630  | .6214 13630  | .1773 50797  |
| .5872  | .5540 32211  | .8324 95231  | .6215 31368  | .1774 12944  |
| .5873  | .5541 15458  | .8324 39823  | .6216 49113  | .1774 75104  |
| .5874  | .5541 98699  | .8323 84408  | .6217 66863  | .1775 37274  |
| 0.5875 | 0.5542 81935 | 0.8323 28984 | 0.6218 84620 | 1.1775 99457 |
| .5876  | .5543 65165  | .8322 73551  | .6220 02383  | .1776 61651  |
| .5877  | .5544 48389  | .8322 18110  | .6221 20153  | .1777 23857  |
| .5878  | .5545 31609  | .8321 62661  | .6222 37928  | .1777 86075  |
| .5879  | .5546 14822  | .8321 07204  | .6223 55710  | .1778 48305  |
| 0.5880 | 0.5546 98030 | 0.8320 51739 | 0.6224 73498 | 1.1779 10546 |
| .5881  | .5547 81232  | .8319 96265  | .6225 91292  | .1779 72800  |
| .5882  | .5548 64429  | .8319 40782  | .6227 09092  | .1780 35065  |
| .5883  | .5549 47620  | .8318 85292  | .6228 26899  | .1780 97341  |
| .5884  | .5550 30806  | .8318 29793  | .6229 44712  | .1781 59630  |
| 0.5885 | 0.5551 13986 | 0.8317 74286 | 0.6230 62531 | 1.1782 21930 |
| .5886  | .5551 97161  | .8317 18770  | .6231 80356  | .1782 84243  |
| .5887  | .5552 80330  | .8316 63246  | .6232 98188  | .1783 46566  |
| .5888  | .5553 63494  | .8316 07714  | .6234 16025  | .1784 08902  |
| .5889  | .5554 46652  | .8315 52173  | .6235 33869  | .1784 71250  |
| 0.5890 | 0.5555 29804 | 0.8314 96625 | 0.6236 51720 | 1.1785 33609 |
| .5891  | .5556 12951  | .8314 41067  | .6237 69576  | .1785 95980  |
| .5892  | .5556 96092  | .8313 85502  | .6238 87439  | .1786 58363  |
| .5893  | .5557 79228  | .8313 29928  | .6240 05308  | .1787 20758  |
| .5894  | .5558 62358  | .8312 74346  | .6241 23183  | .1787 83164  |
| 0.5895 | 0.5559 45483 | 0.8312 18756 | 0.6242 41064 | 1.1788 45582 |
| .5896  | .5560 28602  | .8311 63157  | .6243 58952  | .1789 08012  |
| .5897  | .5561 11716  | .8311 07550  | .6244 76846  | .1789 70454  |
| .5898  | .5561 94824  | .8310 51935  | .6245 94746  | .1790 32908  |
| .5899  | .5562 77926  | .8309 96311  | .6247 12653  | .1790 95373  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.5900 | 0.5563 61023 | 0.8309 40679 | 0.6248 30565 | 1.1791 57850 |
| .5901  | .5564 44114  | .8308 85039  | .6249 48484  | .1792 20339  |
| .5902  | .5565 27200  | .8308 29390  | .6250 66409  | .1792 82840  |
| .5903  | .5566 10280  | .8307 73733  | .6251 84341  | .1793 45352  |
| .5904  | .5566 93355  | .8307 18068  | .6253 02278  | .1794 07877  |
| 0.5905 | 0.5567 76424 | 0.8306 62395 | 0.6254 20222 | 1.1794 70413 |
| .5906  | .5568 59487  | .8306 06713  | .6255 38173  | .1795 32961  |
| .5907  | .5569 42545  | .8305 51023  | .6256 56129  | .1795 95520  |
| .5908  | .5570 25597  | .8304 95324  | .6257 74092  | .1796 58092  |
| .5909  | .5571 08644  | .8304 38618  | .6258 92061  | .1797 20675  |
| 0.5910 | 0.5571 91685 | 0.8303 83903 | 0.6260 10036 | 1.1797 83270 |
| .5911  | .5572 74721  | .8303 28179  | .6261 28017  | .1798 45277  |
| .5912  | .5573 57751  | .8302 72448  | .6262 46005  | .1799 08496  |
| .5913  | .5574 40775  | .8302 16708  | .6263 63999  | .1799 71126  |
| .5914  | .5575 23794  | .8301 60960  | .6264 81999  | .1800 33769  |
| 0.5915 | 0.5576 06808 | 0.8301 05203 | 0.6266 00006 | 1.1800 96423 |
| .5916  | .5576 89815  | .8300 49438  | .6267 18018  | .1801 59089  |
| .5917  | .5577 72817  | .8299 93665  | .6268 36038  | .1802 21766  |
| .5918  | .5578 55814  | .8299 37884  | .6269 54063  | .1802 84456  |
| .5919  | .5579 38805  | .8298 82094  | .6270 72094  | .1803 47157  |
| 0.5920 | 0.5580 21790 | 0.8298 26296 | 0.6271 90132 | 1.1804 09870 |
| .5921  | .5581 04770  | .8297 70490  | .6273 08176  | .1804 72595  |
| .5922  | .5581 87745  | .8297 14675  | .6274 26227  | .1805 35332  |
| .5923  | .5582 70713  | .8296 58852  | .6275 44283  | .1805 98081  |
| .5924  | .5583 53676  | .8296 03021  | .6276 62346  | .1806 60841  |
| 0.5925 | 0.5584 36634 | 0.8295 47181 | 0.6277 80416 | 1.1807 23613 |
| .5926  | .5585 19586  | .8294 91333  | .6278 98491  | .1807 86397  |
| .5927  | .5586 02532  | .8294 35477  | .6280 16573  | .1808 49193  |
| .5928  | .5586 85473  | .8293 79613  | .6281 34661  | .1809 12000  |
| .5929  | .5587 68408  | .8293 23740  | .6282 52755  | .1809 74820  |
| 0.5930 | 0.5588 51338 | 0.8292 67859 | 0.6283 70856 | 1.1810 37651 |
| .5931  | .5589 34262  | .8292 11970  | .6284 88963  | .1811 00494  |
| .5932  | .5590 17180  | .8291 56072  | .6286 07076  | .1811 63349  |
| .5933  | .5591 00093  | .8291 00167  | .6287 25196  | .1812 26215  |
| .5934  | .5591 83000  | .8290 44252  | .6288 43321  | .1812 89094  |
| 0.5935 | 0.5592 65902 | 0.8289 88330 | 0.6289 61453 | 1.1813 51984 |
| .5936  | .5593 48798  | .8289 32399  | .6290 79592  | .1814 14886  |
| .5937  | .5594 31688  | .8288 76460  | .6291 97736  | .1814 77800  |
| .5938  | .5595 14573  | .8288 20513  | .6293 15887  | .1815 40725  |
| .5939  | .5595 97452  | .8287 64557  | .6294 34044  | .1816 03663  |
| 0.5940 | 0.5596 80326 | 0.8287 08593 | 0.6295 52208 | 1.1816 66612 |
| .5941  | .5597 63194  | .8286 52621  | .6296 70378  | .1817 29573  |
| .5942  | .5598 46056  | .8285 96641  | .6297 88554  | .1817 92546  |
| .5943  | .5599 28913  | .8285 40652  | .6299 06736  | .1818 55531  |
| .5944  | .5600 11765  | .8284 84655  | .6300 24925  | .1819 18528  |
| 0.5945 | 0.5600 94610 | 0.8284 28650 | 0.6301 43120 | 1.1819 81536 |
| .5946  | .5601 77450  | .8283 72636  | .6302 61321  | .1820 44556  |
| .5947  | .5602 60285  | .8283 16614  | .6303 79529  | .1821 07588  |
| .5948  | .5603 43114  | .8282 60584  | .6304 97743  | .1821 70632  |
| .5949  | .5604 25937  | .8282 04546  | .6306 15963  | .1822 33688  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.5950 | 0.5605 08754 | 0.8281 48499 | 0.6307 54109 | 1.1831 36755 |
| .5951  | .5605 91567  | .8280 92444  | .6308 52443  | .1833 59835  |
| .5952  | .5606 74373  | .8280 36381  | .6309 70662  | .1834 28926  |
| .5953  | .5607 57174  | .8279 80309  | .6310 58907  | .1834 86029  |
| .5954  | .5608 39969  | .8279 24229  | .6312 97159  | .1835 49144  |
| 0.5955 | 0.5609 22759 | 0.8278 68141 | 0.6313 25417 | 1.1836 12270 |
| .5956  | .5610 05543  | .8278 12045  | .6314 43641  | .1836 75409  |
| .5957  | .5610 88321  | .8277 55940  | .6315 61952  | .1837 38559  |
| .5958  | .5611 71094  | .8276 99827  | .6316 80329  | .1838 01721  |
| .5959  | .5612 53861  | .8276 43706  | .6317 98512  | .1838 64895  |
| 0.5960 | 0.5613 36623 | 0.8275 87576 | 0.6319 16802 | 1.1839 28081 |
| .5961  | .5614 19379  | .8275 31438  | .6320 35099  | .1839 91278  |
| .5962  | .5615 02129  | .8274 75292  | .6321 53400  | .1830 54488  |
| .5963  | .5615 84874  | .8274 19138  | .6322 71709  | .1831 17709  |
| .5964  | .5616 67613  | .8273 62975  | .6323 90024  | .1831 80942  |
| 0.5965 | 0.5617 50346 | 0.8273 06804 | 0.6325 08345 | 1.1832 44187 |
| .5966  | .5618 33074  | .8272 50625  | .6326 26673  | .1833 07444  |
| .5967  | .5619 15796  | .8271 94438  | .6327 45006  | .1833 70712  |
| .5968  | .5619 98513  | .8271 38242  | .6328 63347  | .1834 33993  |
| .5969  | .5620 81224  | .8270 82038  | .6329 81693  | .1834 97285  |
| 0.5970 | 0.5621 63929 | 0.8270 25826 | 0.6331 00046 | 1.1835 60589 |
| .5971  | .5622 46629  | .8269 69605  | .6332 18405  | .1836 23905  |
| .5972  | .5623 29323  | .8269 13376  | .6333 36771  | .1836 87233  |
| .5973  | .5624 12012  | .8268 57139  | .6334 55143  | .1837 50573  |
| .5974  | .5624 94695  | .8268 00894  | .6335 73521  | .1838 13924  |
| 0.5975 | 0.5625 77372 | 0.8267 44640 | 0.6336 91906 | 1.1838 77287 |
| .5976  | .5626 60044  | .8266 88379  | .6338 10296  | .1839 40662  |
| .5977  | .5627 42710  | .8266 32108  | .6339 28694  | .1840 04049  |
| .5978  | .5628 25370  | .8265 75830  | .6340 47097  | .1840 67448  |
| .5979  | .5629 08025  | .8265 19543  | .6341 65507  | .1841 30859  |
| 0.5980 | 0.5629 90674 | 0.8264 63248 | 0.6342 83923 | 1.1841 94281 |
| .5981  | .5630 73317  | .8264 06945  | .6344 02346  | .1842 57715  |
| .5982  | .5631 55955  | .8263 50634  | .6345 20775  | .1843 21162  |
| .5983  | .5632 38588  | .8262 94314  | .6346 39210  | .1843 84620  |
| .5984  | .5633 21214  | .8262 37986  | .6347 57652  | .1844 48089  |
| 0.5985 | 0.5634 03835 | 0.8261 81650 | 0.6348 76100 | 1.1845 11571 |
| .5986  | .5634 86451  | .8261 25305  | .6349 94554  | .1845 75065  |
| .5987  | .5635 69060  | .8260 68953  | .6351 13016  | .1846 38570  |
| .5988  | .5636 51664  | .8260 12591  | .6352 31482  | .1847 02087  |
| .5989  | .5637 34263  | .8259 56222  | .6353 49955  | .1847 65616  |
| 0.5990 | 0.5638 16856 | 0.8258 99845 | 0.6354 68435 | 1.1848 29157 |
| .5991  | .5638 99443  | .8258 43459  | .6355 86921  | .1848 92710  |
| .5992  | .5639 82024  | .8257 87065  | .6357 05414  | .1849 56275  |
| .5993  | .5640 64600  | .8257 30662  | .6358 23912  | .1850 19851  |
| .5994  | .5641 47170  | .8256 74252  | .6359 42418  | .1850 83439  |
| 0.5995 | 0.5642 29735 | 0.8256 17833 | 0.6360 60929 | 1.1851 47040 |
| .5996  | .5643 12294  | .8255 61406  | .6361 79447  | .1852 10652  |
| .5997  | .5643 94847  | .8255 04971  | .6362 97971  | .1852 74276  |
| .5998  | .5644 77395  | .8254 48527  | .6364 16502  | .1853 37911  |
| .5999  | .5645 59937  | .8253 92075  | .6365 35039  | .1854 01559  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.6000 | 0.5646 42473 | 0.8253 35615 | 0.6366 53532 | 1.1854 65218 |
| .6001  | .5647 25004  | .8252 72147  | .6367 72152  | .1855 28890  |
| .6002  | .5648 07529  | .8252 22670  | .6368 90698  | .1855 92573  |
| .6003  | .5648 90049  | .8251 66185  | .6370 09250  | .1856 56268  |
| .6004  | .5649 72562  | .8251 09692  | .6371 27319  | .1857 19975  |
| 0.6005 | 0.5650 55071 | 0.8250 53191 | 0.6372 46394 | 1.1857 83693 |
| .6006  | .5651 37573  | .8249 96681  | .6373 64976  | .1858 47424  |
| .6007  | .5652 20070  | .8249 40163  | .6374 83584  | .1859 11166  |
| .6008  | .5653 02561  | .8248 83637  | .6376 02158  | .1859 74921  |
| .6009  | .5653 85047  | .8248 27102  | .6377 20759  | .1860 38687  |
| 0.6010 | 0.5654 67527 | .8247 70560  | 0.6378 39366 | 1.1861 02465 |
| .6011  | .5655 50001  | .8247 14009  | .6379 57979  | .1861 66255  |
| .6012  | .5656 32469  | .8246 57450  | .6380 76599  | .1862 30056  |
| .6013  | .5657 14932  | .8246 00882  | .6381 95225  | .1862 93870  |
| .6014  | .5657 97390  | .8245 44307  | .6383 13853  | .1863 57695  |
| 0.6015 | 0.5658 79841 | 0.8244 87723 | 0.6384 32497 | 1.1864 21533 |
| .6016  | .5659 62287  | .8244 31131  | .6385 51142  | .1864 85382  |
| .6017  | .5660 44727  | .8243 74531  | .6386 69794  | .1865 49243  |
| .6018  | .5661 27162  | .8243 17922  | .6387 88452  | .1866 13116  |
| .6019  | .5662 09591  | .8242 61305  | .6389 07117  | .1866 77001  |
| 0.6020 | 0.5662 92014 | 0.8242 04680 | 0.6390 25787 | 1.1867 40897 |
| .6021  | .5663 74432  | .8241 48047  | .6391 44465  | .1868 04806  |
| .6022  | .5664 56844  | .8240 91405  | .6392 63148  | .1868 68726  |
| .6023  | .5665 39250  | .8240 34755  | .6393 81839  | .1869 32658  |
| .6024  | .5666 21651  | .8239 78097  | .6395 00535  | .1869 96602  |
| 0.6025 | 0.5667 04046 | 0.8239 21431 | 0.6396 19238 | 1.1870 60558 |
| .6026  | .5667 86435  | .8238 64757  | .6397 37947  | .1871 24526  |
| .6027  | .5668 68819  | .8238 08074  | .6398 56683  | .1871 88506  |
| .6028  | .5669 51197  | .8237 51383  | .6399 75385  | .1872 52498  |
| .6029  | .5670 33569  | .8236 94683  | .6400 94113  | .1873 16501  |
| 0.6030 | 0.5671 15936 | 0.8236 37976 | 0.6402 12848 | 1.1873 80516 |
| .6031  | .5671 98297  | .8235 81260  | .6403 31589  | .1874 44544  |
| .6032  | .5672 80652  | .8235 24536  | .6404 50337  | .1875 08583  |
| .6033  | .5673 63002  | .8234 67804  | .6405 69091  | .1875 72634  |
| .6034  | .5674 45345  | .8234 11064  | .6406 87852  | .1876 36697  |
| 0.6035 | 0.5675 27684 | 0.8233 54315 | 0.6408 06618 | 1.1877 00771 |
| .6036  | .5676 10016  | .8232 97558  | .6409 25392  | .1877 64858  |
| .6037  | .5676 92343  | .8232 40793  | .6410 44171  | .1878 28956  |
| .6038  | .5677 74664  | .8231 84020  | .6411 62957  | .1878 93067  |
| .6039  | .5678 56980  | .8231 27238  | .6412 81750  | .1879 57189  |
| 0.6040 | 0.5679 39290 | 0.8230 70448 | 0.6414 00549 | 1.1880 21323 |
| .6041  | .5680 21594  | .8230 13650  | .6415 19354  | .1880 85469  |
| .6042  | .5681 03893  | .8229 56844  | .6416 38166  | .1881 49627  |
| .6043  | .5681 86185  | .8229 00030  | .6417 56984  | .1882 13797  |
| .6044  | .5682 68473  | .8228 43207  | .6418 75809  | .1882 77978  |
| 0.6045 | 0.5683 50754 | 0.8227 86376 | 0.6419 94640 | 1.1883 42172 |
| .6046  | .5684 33030  | .8227 29537  | .6421 13477  | .1884 06377  |
| .6047  | .5685 15300  | .8226 72689  | .6422 32321  | .1884 70595  |
| .6048  | .5685 97564  | .8226 15834  | .6423 51171  | .1885 34824  |
| .6049  | .5686 79823  | .8225 58970  | .6424 70028  | .1885 99065  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.6050 | 0.5687 62076 | 0.8225 02098 | 0.6435 80941 | 1.1890 63318 |
| .6051  | .5688 44324  | .8224 45217  | .6437 07701  | .1897 27583  |
| .6052  | .5689 26565  | .8223 88329  | .6438 30037  | .1897 91850  |
| .6053  | .5690 08801  | .8223 31432  | .6439 48813  | .1898 56148  |
| .6054  | .5690 91032  | .8222 74527  | .6430 34408  | .1899 20448  |
| 0.6055 | 0.5691 73256 | 0.8222 17614 | 0.6431 83303 | 1.1899 84761 |
| .6056  | .5692 55475  | .8221 00692  | .6433 02303  | .1890 49015  |
| .6057  | .5693 37688  | .8221 03763  | .6434 21113  | .1891 13421  |
| .6058  | .5694 19896  | .8220 46825  | .6435 40023  | .1891 77769  |
| .6059  | .5695 02098  | .8219 89870  | .6436 58945  | .1892 42129  |
| 0.6060 | 0.5695 84294 | 0.8219 32924 | 0.6437 77876 | 1.1893 06501 |
| .6061  | .5696 66484  | .8218 75962  | .6438 96810  | .1893 70885  |
| .6062  | .5697 48669  | .8218 18991  | .6440 15750  | .1894 35230  |
| .6063  | .5698 30843  | .8217 62012  | .6441 34697  | .1894 99688  |
| .6064  | .5699 13021  | .8217 05025  | .6442 53650  | .1895 64107  |
| 0.6065 | 0.5699 95189 | 0.8216 48030 | 0.6443 72610 | 1.1896 28530 |
| .6066  | .5700 77351  | .8215 91026  | .6444 91576  | .1896 92982  |
| .6067  | .5701 59507  | .8215 34014  | .6446 10548  | .1897 57437  |
| .6068  | .5702 41658  | .8214 76994  | .6447 29527  | .1898 21904  |
| .6069  | .5703 23803  | .8214 19966  | .6448 48513  | .1898 86383  |
| 0.6070 | 0.5704 05942 | 0.8213 62929 | 0.6449 67505 | 1.1899 50874 |
| .6071  | .5704 88075  | .8213 05885  | .6450 86503  | .1900 15376  |
| .6072  | .5705 70203  | .8212 48832  | .6452 05503  | .1900 79891  |
| .6073  | .5706 52325  | .8211 91770  | .6453 24519  | .1901 44418  |
| .6074  | .5707 34441  | .8211 34701  | .6454 43536  | .1902 08956  |
| 0.6075 | 0.5708 16552 | 0.8210 77624 | 0.6455 62561 | 1.1902 73506 |
| .6076  | .5708 98657  | .8210 20538  | .6456 81591  | .1903 38068  |
| .6077  | .5709 80756  | .8209 63444  | .6458 00628  | .1904 02643  |
| .6078  | .5710 62850  | .8209 06342  | .6459 19672  | .1904 67229  |
| .6079  | .5711 44937  | .8208 49231  | .6460 38722  | .1905 31826  |
| 0.6080 | 0.5712 27019 | 0.8207 92113 | 0.6461 57778 | 1.1905 96436 |
| .6081  | .5713 09096  | .8207 34986  | .6462 76841  | .1906 61058  |
| .6082  | .5713 91166  | .8206 77851  | .6463 95910  | .1907 25692  |
| .6083  | .5714 73231  | .8206 20708  | .6465 14935  | .1907 90337  |
| .6084  | .5715 55291  | .8205 63556  | .6466 34068  | .1908 54995  |
| 0.6085 | 0.5716 37344 | 0.8205 06397 | 0.6467 53157 | 1.1909 19664 |
| .6086  | .5717 19392  | .8204 49229  | .6468 72252  | .1909 84345  |
| .6087  | .5718 01434  | .8203 92053  | .6469 91354  | .1910 49038  |
| .6088  | .5718 83470  | .8203 34868  | .6471 10462  | .1911 13744  |
| .6089  | .5719 65501  | .8202 77676  | .6472 29577  | .1911 78461  |
| 0.6090 | 0.5720 47526 | 0.8202 20475 | 0.6473 48698 | 1.1912 43190 |
| .6091  | .5721 29545  | .8201 63267  | .6474 67825  | .1913 07930  |
| .6092  | .5722 11558  | .8201 06049  | .6475 86959  | .1913 72683  |
| .6093  | .5722 93566  | .8200 48824  | .6477 06100  | .1914 37448  |
| .6094  | .5723 75568  | .8199 91591  | .6478 25247  | .1915 02224  |
| 0.6095 | 0.5724 57564 | 0.8199 34349 | 0.6479 44400 | 1.1915 67013 |
| .6096  | .5725 39555  | .8198 77099  | .6480 63560  | .1916 31813  |
| .6097  | .5726 21540  | .8198 19841  | .6481 82727  | .1916 96625  |
| .6098  | .5727 03519  | .8197 62575  | .6483 01900  | .1917 61450  |
| .6099  | .5727 85492  | .8197 05300  | .6484 21079  | .1918 26286  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.6100 | 0.5728 67460 | 0.8196 48018 | 0.6485 40265 | 1.1918 91134 |
| .6101  | .5729 49422  | .8195 90727  | .6486 59457  | .1919 55994  |
| .6102  | .5730 31378  | .8195 33428  | .6487 78656  | .1920 20866  |
| .6103  | .5731 13329  | .8194 76121  | .6488 97861  | .1920 85750  |
| .6104  | .5731 95273  | .8194 18805  | .6490 17073  | .1921 50645  |
| 0.6105 | 0.5732 77212 | 0.8193 61482 | 0.6491 36292 | 1.1922 15553 |
| .6106  | .5733 59146  | .8193 04150  | .6492 55516  | .1922 80473  |
| .6107  | .5734 41073  | .8192 46810  | .6493 74748  | .1923 45404  |
| .6108  | .5735 22995  | .8191 89462  | .6494 93985  | .1924 10348  |
| .6109  | .5736 04911  | .8191 32105  | .6496 13250  | .1924 75303  |
| 0.6110 | 0.5736 86822 | 0.8190 74741 | 0.6497 32480 | 1.1925 40270 |
| .6111  | .5737 68726  | .8190 17368  | .6498 51738  | .1926 05249  |
| .6112  | .5738 50625  | .8189 59987  | .6499 71002  | .1926 70241  |
| .6113  | .5739 32518  | .8189 02598  | .6500 90272  | .1927 35244  |
| .6114  | .5740 14406  | .8188 45200  | .6502 09549  | .1928 00259  |
| 0.6115 | 0.5740 96287 | 0.8187 87795 | 0.6503 28832 | 1.1928 65286 |
| .6116  | .5741 78163  | .8187 30381  | .6504 48122  | .1929 30324  |
| .6117  | .5742 60033  | .8186 72959  | .6505 67418  | .1929 95375  |
| .6118  | .5743 41898  | .8186 15529  | .6506 86721  | .1930 60438  |
| .6119  | .5744 23756  | .8185 58091  | .6508 06030  | .1931 25513  |
| 0.6120 | 0.5745 05609 | 0.8185 00644 | 0.6509 25346 | 1.1931 90599 |
| .6121  | .5745 87457  | .8184 43190  | .6510 44668  | .1932 55698  |
| .6122  | .5746 69298  | .8183 85727  | .6511 63997  | .1933 20808  |
| .6123  | .5747 51134  | .8183 28256  | .6512 83332  | .1933 85930  |
| .6124  | .5748 32964  | .8182 70777  | .6514 02674  | .1934 51065  |
| 0.6125 | 0.5749 14788 | 0.8182 13289 | 0.6515 22022 | 1.1935 16211 |
| .6126  | .5749 96606  | .8181 55794  | .6516 41377  | .1935 81369  |
| .6127  | .5750 78419  | .8180 98290  | .6517 60739  | .1936 46539  |
| .6128  | .5751 60226  | .8180 40778  | .6518 80107  | .1937 11721  |
| .6129  | .5752 42027  | .8179 83258  | .6519 99481  | .1937 76915  |
| 0.6130 | 0.5753 23823 | 0.8179 25730 | 0.6521 18862 | 1.1938 42121 |
| .6131  | .5754 05612  | .8178 68193  | .6522 38250  | .1939 07339  |
| .6132  | .5754 87396  | .8178 10649  | .6523 57644  | .1939 72569  |
| .6133  | .5755 69174  | .8177 53096  | .6524 77044  | .1940 37811  |
| .6134  | .5756 50947  | .8176 95535  | .6525 96451  | .1941 03064  |
| 0.6135 | 0.5757 32713 | 0.8176 37965 | 0.6527 15865 | 1.1941 68330 |
| .6136  | .5758 14474  | .8175 80388  | .6528 35285  | .1942 33607  |
| .6137  | .5758 96230  | .8175 22803  | .6529 54711  | .1942 98897  |
| .6138  | .5759 77979  | .8174 65209  | .6530 74145  | .1943 64198  |
| .6139  | .5760 59723  | .8174 07607  | .6531 93584  | .1944 29512  |
| 0.6140 | 0.5761 41460 | 0.8173 49997 | 0.6533 13030 | 1.1944 94837 |
| .6141  | .5762 23193  | .8172 92379  | .6534 32483  | .1945 60174  |
| .6142  | .5763 04919  | .8172 34752  | .6535 51942  | .1946 25524  |
| .6143  | .5763 86640  | .8171 77118  | .6536 71408  | .1946 90885  |
| .6144  | .5764 68354  | .8171 19475  | .6537 90881  | .1947 56258  |
| 0.6145 | 0.5765 50063 | 0.8170 61824 | 0.6539 10360 | 1.1948 21643 |
| .6146  | .5766 31767  | .8170 04165  | .6540 29845  | .1948 87040  |
| .6147  | .5767 13464  | .8169 46498  | .6541 49337  | .1949 52449  |
| .6148  | .5767 95156  | .8168 88822  | .6542 68835  | .1950 17870  |
| .6149  | .5768 76842  | .8168 31139  | .6543 88341  | .1950 83303  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.6150 | 0.5769 58522 | 0.8167 73447 | 0.6545 07852 | 1.1951 48747 |
| .6151  | .5770 40197  | .8167 15747  | .6546 27370  | .1952 14204  |
| .6152  | .5771 21865  | .8166 58039  | .6547 46895  | .1952 79673  |
| .6153  | .5772 03528  | .8166 00323  | .6548 66426  | .1953 45154  |
| .6154  | .5772 85185  | .8165 42598  | .6549 85964  | .1954 10646  |
| 0.6155 | 0.5773 66837 | 0.8164 84866 | 0.6551 05508 | 1.1954 76151 |
| .6156  | .5774 48482  | .8164 27125  | .6552 25059  | .1955 41667  |
| .6157  | .5775 30122  | .8163 69376  | .6553 44617  | .1956 07196  |
| .6158  | .5776 11756  | .8163 11619  | .6554 64181  | .1956 72736  |
| .6159  | .5776 93385  | .8162 53854  | .6555 83751  | .1957 38289  |
| 0.6160 | 0.5777 75007 | 0.8161 96080 | 0.6557 03328 | 1.1958 03853 |
| .6161  | .5778 56624  | .8161 38299  | .6558 22912  | .1958 69429  |
| .6162  | .5779 38235  | .8160 80509  | .6559 42502  | .1959 35018  |
| .6163  | .5780 19840  | .8160 22711  | .6560 62099  | .1960 00618  |
| .6164  | .5781 01439  | .8159 64905  | .6561 81702  | .1960 66230  |
| 0.6165 | 0.5781 83033 | 0.8159 07091 | 0.6563 01312 | 1.1961 31854 |
| .6166  | .5782 64621  | .8158 49268  | .6564 20929  | .1961 97490  |
| .6167  | .5783 46203  | .8157 91438  | .6565 40552  | .1962 63138  |
| .6168  | .5784 27779  | .8157 33599  | .6566 60181  | .1963 28798  |
| .6169  | .5785 09349  | .8156 75752  | .6567 79817  | .1963 94470  |
| 0.6170 | 0.5785 90914 | 0.8156 17897 | 0.6568 99460 | 1.1964 60154 |
| .6171  | .5786 72473  | .8155 60034  | .6570 19110  | .1965 25850  |
| .6172  | .5787 54026  | .8155 02163  | .6571 38765  | .1965 91558  |
| .6173  | .5788 35574  | .8154 44283  | .6572 58428  | .1966 57278  |
| .6174  | .5789 17115  | .8153 86395  | .6573 78097  | .1967 23010  |
| 0.6175 | 0.5789 98651 | 0.8153 28500 | 0.6574 97772 | 1.1967 88754 |
| .6176  | .5790 80181  | .8152 70596  | .6576 17455  | .1968 54509  |
| .6177  | .5791 61705  | .8152 12684  | .6577 37143  | .1969 20277  |
| .6178  | .5792 43223  | .8151 54763  | .6578 56839  | .1969 86057  |
| .6179  | .5793 24736  | .8150 96835  | .6579 76541  | .1970 51848  |
| 0.6180 | 0.5794 06243 | 0.8150 38898 | 0.6580 96249 | 1.1971 17652 |
| .6181  | .5794 87744  | .8149 80954  | .6582 15964  | .1971 83468  |
| .6182  | .5795 69239  | .8149 23001  | .6583 35686  | .1972 49295  |
| .6183  | .5796 50728  | .8148 65040  | .6584 55414  | .1973 15135  |
| .6184  | .5797 32212  | .8148 07071  | .6585 75149  | .1973 80986  |
| 0.6185 | 0.5798 13690 | 0.8147 49093 | 0.6586 94890 | 1.1974 46850 |
| .6186  | .5798 95162  | .8146 91108  | .6588 14638  | .1975 12725  |
| .6187  | .5799 76628  | .8146 33114  | .6589 34393  | .1975 78613  |
| .6188  | .5800 58088  | .8145 75113  | .6590 54154  | .1976 44512  |
| .6189  | .5801 39543  | .8145 17103  | .6591 73922  | .1977 10424  |
| 0.6190 | 0.5802 20992 | 0.8144 59085 | 0.6592 93696 | 1.1977 76347 |
| .6191  | .5803 02435  | .8144 01059  | .6594 13477  | .1978 42282  |
| .6192  | .5803 83872  | .8143 43024  | .6595 33264  | .1979 08230  |
| .6193  | .5804 65303  | .8142 84982  | .6596 53059  | .1979 74189  |
| .6194  | .5805 46729  | .8142 26931  | .6597 72859  | .1980 40160  |
| 0.6195 | 0.5806 28149 | 0.8141 68872 | 0.6598 92667 | 1.1981 06144 |
| .6196  | .5807 09563  | .8141 10806  | .6600 12480  | .1981 72139  |
| .6197  | .5807 90971  | .8140 52731  | .6601 32301  | .1982 38146  |
| .6198  | .5808 72373  | .8139 94647  | .6602 52128  | .1983 04165  |
| .6199  | .5809 53770  | .8139 36556  | .6603 71962  | .1983 70197  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.6200 | 0.5810 35161 | 0.8138 78457 | 0.6604 91802 | 1.1984 36240 |
| .6201  | .5811 16545  | .8138 20349  | .6606 11649  | .1985 02295  |
| .6202  | .5811 97925  | .8137 62233  | .6607 31503  | .1985 68362  |
| .6203  | .5812 79298  | .8137 04109  | .6608 51363  | .1986 34441  |
| .6204  | .5813 60665  | .8136 45977  | .6609 71229  | .1987 00532  |
| 0.6205 | 0.5814 42027 | 0.8135 87837 | 0.6610 91103 | 1.1987 66635 |
| .6206  | .5815 23383  | .8135 29689  | .6612 10983  | .1988 32751  |
| .6207  | .5816 04733  | .8134 71533  | .6613 30869  | .1988 98878  |
| .6208  | .5816 86077  | .8134 13368  | .6614 50763  | .1989 65017  |
| .6209  | .5817 67416  | .8133 55195  | .6615 70662  | .1990 31168  |
| 0.6210 | 0.5818 48748 | 0.8132 97015 | 0.6616 90569 | 1.1990 97331 |
| .6211  | .5819 30075  | .8132 38826  | .6618 10482  | .1991 63506  |
| .6212  | .5820 11396  | .8131 80629  | .6619 30402  | .1992 29693  |
| .6213  | .5820 92711  | .8131 22423  | .6620 50328  | .1992 95892  |
| .6214  | .5821 74021  | .8130 64210  | .6621 70261  | .1993 62103  |
| 0.6215 | 0.5822 55324 | 0.8130 05989 | 0.6622 90200 | 1.1994 28326 |
| .6216  | .5823 36622  | .8129 47759  | .6624 10146  | .1994 94561  |
| .6217  | .5824 17914  | .8128 89521  | .6625 30099  | .1995 60808  |
| .6218  | .5824 99200  | .8128 31275  | .6626 50059  | .1996 27067  |
| .6219  | .5825 80480  | .8127 73021  | .6627 70025  | .1996 93338  |
| 0.6220 | 0.5826 61754 | 0.8127 14759 | 0.6628 89997 | 1.1997 59621 |
| .6221  | .5827 43023  | .8126 56489  | .6630 09976  | .1998 25916  |
| .6222  | .5828 24286  | .8125 98211  | .6631 29962  | .1998 92223  |
| .6223  | .5829 05542  | .8125 39924  | .6632 49955  | .1999 58542  |
| .6224  | .5829 86794  | .8124 81630  | .6633 69954  | .2000 24873  |
| 0.6225 | 0.5830 68039 | 0.8124 23327 | 0.6634 89960 | 1.2000 91216 |
| .6226  | .5831 49278  | .8123 65016  | .6636 09976  | .2001 57571  |
| .6227  | .5832 30512  | .8123 06697  | .6637 29991  | .2002 23938  |
| .6228  | .5833 11740  | .8122 48370  | .6638 50017  | .2002 90317  |
| .6229  | .5833 92962  | .8121 90035  | .6639 70049  | .2003 56708  |
| 0.6230 | 0.5834 74178 | 0.8121 31691 | 0.6640 90088 | 1.2004 23111 |
| .6231  | .5835 55388  | .8120 73340  | .6642 10134  | .2004 89526  |
| .6232  | .5836 36592  | .8120 14980  | .6643 30186  | .2005 55953  |
| .6233  | .5837 17791  | .8119 56613  | .6644 50245  | .2006 22392  |
| .6234  | .5837 98984  | .8118 98237  | .6645 70311  | .2006 88843  |
| 0.6235 | 0.5838 80170 | 0.8118 39853 | 0.6646 90383 | 1.2007 55306 |
| .6236  | .5839 61352  | .8117 81461  | .6648 10462  | .2008 21781  |
| .6237  | .5840 42527  | .8117 23060  | .6649 30547  | .2008 88268  |
| .6238  | .5841 23696  | .8116 64652  | .6650 50640  | .2009 54767  |
| .6239  | .5842 04860  | .8116 06236  | .6651 70738  | .2010 21278  |
| 0.6240 | 0.5842 86017 | 0.8115 47811 | 0.6652 90844 | 1.2010 87801 |
| .6241  | .5843 67169  | .8114 89379  | .6654 10956  | .2011 54337  |
| .6242  | .5844 48315  | .8114 30938  | .6655 31075  | .2012 20884  |
| .6243  | .5845 29455  | .8113 72489  | .6656 51200  | .2012 87443  |
| .6244  | .5846 10590  | .8113 14032  | .6657 71332  | .2013 54014  |
| 0.6245 | 0.5846 91718 | 0.8112 55567 | 0.6658 91471 | 1.2014 20597 |
| .6246  | .5847 72841  | .8111 97094  | .6660 11616  | .2014 87192  |
| .6247  | .5848 53958  | .8111 38612  | .6661 31768  | .2015 53799  |
| .6248  | .5849 35069  | .8110 80123  | .6662 51927  | .2016 20419  |
| .6249  | .5850 16174  | .8110 21625  | .6663 72092  | .2016 87050  |

| x      | sin x        | cos x        | sinh x       | cosh x        |
|--------|--------------|--------------|--------------|---------------|
| 0.6250 | 0.5850 97273 | 0.8109 63120 | 0.6664 33264 | 1.1917 19363  |
| .6251  | .5851 78366  | .8109 04606  | .6666 13446  | .1918 19348   |
| .6252  | .5852 59454  | .8108 46084  | .6667 32639  | .1918 197015  |
| .6253  | .5853 40536  | .8107 87554  | .6668 51831  | .1919 19655   |
| .6254  | .5854 21611  | .8107 29016  | .6669 71019  | .1920 19886   |
| 0.6255 | 0.5855 02681 | 0.8106 70470 | 0.6670 90145 | .1920 197039  |
| .6256  | .5855 83745  | .8106 11915  | .6672 15437  | .1921 19305   |
| .6257  | .5856 64804  | .8105 53353  | .6673 34646  | .1922 19582   |
| .6258  | .5857 45856  | .8104 94782  | .6674 53851  | .1922 197271  |
| .6259  | .5858 26903  | .8104 36204  | .6675 74113  | .1923 194023  |
| 0.6260 | 0.5859 07943 | 0.8103 77617 | 0.6676 94352 | 1.1924 19786  |
| .6261  | .5859 88978  | .8103 19022  | .6678 14597  | .1924 19562   |
| .6262  | .5860 70007  | .8102 60419  | .6679 34849  | .1925 194349  |
| .6263  | .5861 51030  | .8102 01803  | .6680 55108  | .1926 191149  |
| .6264  | .5862 32048  | .8101 43189  | .6681 75373  | .1926 197960  |
| 0.6265 | 0.5863 13059 | 0.8100 84562 | 0.6682 95645 | 1.1927 19784  |
| .6266  | .5863 94064  | .8100 25926  | .6684 15824  | .1928 19619   |
| .6267  | .5864 75064  | .8099 67283  | .6685 36010  | .1928 19467   |
| .6268  | .5865 56058  | .8099 08631  | .6686 56202  | .1929 19327   |
| .6269  | .5866 37046  | .8098 49972  | .6687 76401  | .1930 19198   |
| 0.6270 | 0.5867 18028 | 0.8097 91304 | 0.6688 97106 | 1.1930 19082  |
| .6271  | .5867 99004  | .8097 32628  | .6690 17419  | .1931 18978   |
| .6272  | .5868 79974  | .8096 73944  | .6691 37738  | .1932 18885   |
| .6273  | .5869 60939  | .8096 15252  | .6692 58063  | .1932 190805  |
| .6274  | .5870 41897  | .8095 56552  | .6693 78396  | .1933 18737   |
| 0.6275 | 0.5871 22850 | 0.8094 97844 | 0.6694 98735 | 1.1934 18681  |
| .6276  | .5872 03797  | .8094 39127  | .6696 19080  | .1934 19037   |
| .6277  | .5872 84738  | .8093 80403  | .6697 39433  | .1935 197605  |
| .6278  | .5873 65673  | .8093 21670  | .6698 59792  | .1936 194585  |
| .6279  | .5874 46602  | .8092 62930  | .6699 80158  | .1936 19187   |
| 0.6280 | 0.5875 27526 | 0.8092 04181 | 0.6701 00530 | 1.1937 18581  |
| .6281  | .5876 08443  | .8091 45424  | .6702 20909  | .1938 18597   |
| .6282  | .5876 89355  | .8090 86659  | .6703 41295  | .1938 192625  |
| .6283  | .5877 70261  | .8090 27886  | .6704 61688  | .1939 19665   |
| .6284  | .5878 51160  | .8089 69105  | .6705 82087  | .1940 196717  |
| 0.6285 | 0.5879 32054 | 0.8089 10316 | 0.6707 02493 | 1.1940 193781 |
| .6286  | .5880 12942  | .8088 51519  | .6708 22906  | .1941 190858  |
| .6287  | .5880 93825  | .8087 92713  | .6709 43325  | .1942 197946  |
| .6288  | .5881 74701  | .8087 33900  | .6710 63752  | .1942 195046  |
| .6289  | .5882 55571  | .8086 75079  | .6711 84184  | .1943 192159  |
| 0.6290 | 0.5883 36436 | 0.8086 16249 | 0.6713 04624 | 1.1944 19283  |
| .6291  | .5884 17295  | .8085 57411  | .6714 25070  | .1944 196420  |
| .6292  | .5884 98147  | .8084 98565  | .6715 45523  | .1945 193568  |
| .6293  | .5885 78994  | .8084 39712  | .6716 65983  | .1946 190729  |
| .6294  | .5886 59835  | .8083 80850  | .6717 86449  | .1946 197901  |
| 0.6295 | 0.5887 40671 | 0.8083 21980 | 0.6719 06923 | 1.1947 195086 |
| .6296  | .5888 21500  | .8082 63102  | .6720 27402  | .1948 192283  |
| .6297  | .5889 02323  | .8082 04215  | .6721 47889  | .1948 199492  |
| .6298  | .5889 83141  | .8081 45321  | .6722 68382  | .1949 196612  |
| .6299  | .5890 63952  | .8080 86419  | .6723 88882  | .1950 193945  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.6300 | 0.5891 44758 | 0.8080 27508 | 0.6725 09389 | 1.2051 01190 |
| .6301  | .5892 25558  | .8079 68590  | .6726 29903  | .2051 68447  |
| .6302  | .5893 06352  | .8079 09663  | .6727 50423  | .2052 35716  |
| .6303  | .5893 87140  | .8078 50729  | .6728 70950  | .2053 02997  |
| .6304  | .5894 67922  | .8077 91786  | .6729 91483  | .2053 70290  |
| 0.6305 | 0.5895 48698 | 0.8077 32835 | 0.6731 12024 | 1.2054 37595 |
| .6306  | .5896 29468  | .8076 73876  | .6732 32571  | .2055 04913  |
| .6307  | .5897 10233  | .8076 14909  | .6733 53125  | .2055 72242  |
| .6308  | .5897 90991  | .8075 55934  | .6734 73685  | .2056 39583  |
| .6309  | .5898 71744  | .8074 96951  | .6735 94253  | .2057 06937  |
| 0.6310 | 0.5899 52491 | 0.8074 37960 | 0.6737 14827 | 1.2057 74302 |
| .6311  | .5900 33232  | .8073 78960  | .6738 35408  | .2058 41680  |
| .6312  | .5901 13967  | .8073 19953  | .6739 55995  | .2059 09069  |
| .6313  | .5901 94696  | .8072 60958  | .6740 76589  | .2059 76471  |
| .6314  | .5902 75419  | .8072 01914  | .6741 97190  | .2060 43885  |
| 0.6315 | 0.5903 56136 | 0.8071 42882 | 0.6743 17798 | 1.2061 11310 |
| .6316  | .5904 36847  | .8070 83843  | .6744 38413  | .2061 78748  |
| .6317  | .5905 17553  | .8070 24795  | .6745 59034  | .2062 46198  |
| .6318  | .5905 98252  | .8069 65739  | .6746 79662  | .2063 13660  |
| .6319  | .5906 78946  | .8069 06675  | .6748 00297  | .2063 81134  |
| 0.6320 | 0.5907 59634 | 0.8068 47604 | 0.6749 20938 | 1.2064 48620 |
| .6321  | .5908 40315  | .8067 88524  | .6750 41586  | .2065 16118  |
| .6322  | .5909 20991  | .8067 29435  | .6751 62241  | .2065 83628  |
| .6323  | .5910 01661  | .8066 70339  | .6752 82903  | .2066 51151  |
| .6324  | .5910 82325  | .8066 11235  | .6754 03572  | .2067 18685  |
| 0.6325 | 0.5911 62964 | 0.8065 52123 | 0.6755 24247 | 1.2067 86231 |
| .6326  | .5912 43636  | .8064 93003  | .6756 44929  | .2068 53790  |
| .6327  | .5913 24282  | .8064 33874  | .6757 65618  | .2069 21360  |
| .6328  | .5914 04923  | .8063 74738  | .6758 86313  | .2069 88943  |
| .6329  | .5914 85557  | .8063 15593  | .6760 07015  | .2070 56538  |
| 0.6330 | 0.5915 66186 | 0.8062 56441 | 0.6761 27724 | 1.2071 24144 |
| .6331  | .5916 46808  | .8061 97280  | .6762 48440  | .2071 91763  |
| .6332  | .5917 27425  | .8061 38111  | .6763 69163  | .2072 59394  |
| .6333  | .5918 08036  | .8060 78934  | .6764 89892  | .2073 27037  |
| .6334  | .5918 88641  | .8060 19750  | .6766 10628  | .2073 94692  |
| 0.6335 | 0.5919 69240 | 0.8059 60557 | 0.6767 31371 | 1.2074 62359 |
| .6336  | .5920 49833  | .8059 01356  | .6768 52121  | .2075 30038  |
| .6337  | .5921 30420  | .8058 42147  | .6769 72877  | .2075 97729  |
| .6338  | .5922 11001  | .8057 82930  | .6770 93640  | .2076 65433  |
| .6339  | .5922 91577  | .8057 23705  | .6772 14410  | .2077 33148  |
| 0.6340 | 0.5923 72146 | 0.8056 64471 | 0.6773 35187 | 1.2078 00876 |
| .6341  | .5924 52710  | .8056 05230  | .6774 55970  | .2078 68615  |
| .6342  | .5925 33267  | .8055 45981  | .6775 76761  | .2079 36367  |
| .6343  | .5926 13819  | .8054 86723  | .6776 97558  | .2080 04131  |
| .6344  | .5926 94365  | .8054 27458  | .6778 18361  | .2080 71906  |
| 0.6345 | 0.5927 74904 | 0.8053 68185 | 0.6779 39172 | 1.2081 39694 |
| .6346  | .5928 55438  | .8053 08903  | .6780 59989  | .2082 07494  |
| .6347  | .5929 35966  | .8052 49613  | .6781 80813  | .2082 75306  |
| .6348  | .5930 16488  | .8051 90316  | .6783 01644  | .2083 43130  |
| .6349  | .5930 97004  | .8051 31010  | .6784 22482  | .2084 10967  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.6350 | 0.5931 77514 | 0.8050 71696 | 0.6785 43327 | 1.2084 78815 |
| .6351  | .5932 58019  | .8050 12375  | .6786 64178  | .2085 46675  |
| .6352  | .5933 38517  | .8049 53045  | .6787 85036  | .2086 14548  |
| .6353  | .5934 19009  | .8048 93707  | .6789 05901  | .2086 82432  |
| .6354  | .5934 99496  | .8048 34361  | .6790 26772  | .2087 50329  |
| 0.6355 | 0.5935 79976 | 0.8047 75007 | 0.6791 47651 | 1.2088 18238 |
| .6356  | .5936 60451  | .8047 15645  | .6792 68536  | .2088 86158  |
| .6357  | .5937 40919  | .8046 56275  | .6793 89428  | .2089 54091  |
| .6358  | .5938 21382  | .8045 96897  | .6795 10327  | .2090 22036  |
| .6359  | .5939 01839  | .8045 37511  | .6796 31232  | .2090 89993  |
| 0.6360 | 0.5939 82289 | 0.8044 78117 | 0.6797 52145 | 1.2091 57963 |
| .6361  | .5940 62734  | .8044 18714  | .6798 73064  | .2092 25944  |
| .6362  | .5941 43173  | .8043 59304  | .6799 93990  | .2092 93937  |
| .6363  | .5942 23606  | .8042 99886  | .6801 14913  | .2093 61943  |
| .6364  | .5943 04033  | .8042 40459  | .6802 35862  | .2094 29960  |
| 0.6365 | 0.5943 84454 | 0.8041 81025 | 0.6803 56809 | 1.2094 97990 |
| .6366  | .5944 64869  | .8041 21582  | .6804 77762  | .2095 66032  |
| .6367  | .5945 45278  | .8040 62132  | .6805 98722  | .2096 34085  |
| .6368  | .5946 25682  | .8040 02673  | .6807 19689  | .2097 02151  |
| .6369  | .5947 06079  | .8039 43207  | .6808 40662  | .2097 70229  |
| 0.6370 | 0.5947 86470 | 0.8038 83732 | 0.6809 61643 | 1.2098 38319 |
| .6371  | .5948 66856  | .8038 24249  | .6810 82630  | .2099 06422  |
| .6372  | .5949 47235  | .8037 64759  | .6812 03624  | .2099 74536  |
| .6373  | .5950 27609  | .8037 05260  | .6813 24625  | .2100 42662  |
| .6374  | .5951 07976  | .8036 45753  | .6814 45633  | .2101 10801  |
| 0.6375 | 0.5951 88338 | 0.8035 86238 | 0.6815 66647 | 1.2101 78951 |
| .6376  | .5952 68693  | .8035 26716  | .6816 87669  | .2102 47114  |
| .6377  | .5953 49043  | .8034 67185  | .6818 08697  | .2103 15289  |
| .6378  | .5954 29387  | .8034 07646  | .6819 29732  | .2103 83476  |
| .6379  | .5955 09725  | .8033 48099  | .6820 50773  | .2104 51675  |
| 0.6380 | 0.5955 90057 | 0.8032 88544 | 0.6821 71822 | 1.2105 19886 |
| .6381  | .5956 70382  | .8032 28981  | .6822 92877  | .2105 88109  |
| .6382  | .5957 50702  | .8031 69410  | .6824 13940  | .2106 56345  |
| .6383  | .5958 31016  | .8031 09831  | .6825 35009  | .2107 24592  |
| .6384  | .5959 11324  | .8030 50244  | .6826 56084  | .2107 92852  |
| 0.6385 | 0.5959 91626 | 0.8029 90648 | 0.6827 77167 | 1.2108 61123 |
| .6386  | .5960 71922  | .8029 31045  | .6828 98257  | .2109 29407  |
| .6387  | .5961 52213  | .8028 71434  | .6830 19353  | .2109 97703  |
| .6388  | .5962 32497  | .8028 11815  | .6831 40456  | .2110 66011  |
| .6389  | .5963 12775  | .8027 52187  | .6832 61566  | .2111 34331  |
| 0.6390 | 0.5963 93047 | 0.8026 92552 | 0.6833 82683 | 1.2112 02663 |
| .6391  | .5964 73313  | .8026 32909  | .6835 03807  | .2112 71008  |
| .6392  | .5965 53574  | .8025 73268  | .6836 24937  | .2113 39364  |
| .6393  | .5966 33828  | .8025 13598  | .6837 46075  | .2114 07733  |
| .6394  | .5967 14076  | .8024 53931  | .6838 67219  | .2114 76113  |
| 0.6395 | 0.5967 94319 | 0.8023 94255 | 0.6839 88370 | 1.2115 44506 |
| .6396  | .5968 74555  | .8023 34572  | .6841 09520  | .2116 12911  |
| .6397  | .5969 54786  | .8022 74880  | .6842 30692  | .2116 81328  |
| .6398  | .5970 35010  | .8022 15181  | .6843 51864  | .2117 49757  |
| .6399  | .5971 15229  | .8021 55473  | .6844 73042  | .2118 18198  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.6400 | 0.5971 95441 | 0.8020 95752 | 0.6845 94228 | 1.2118 86652 |
| .6401  | .5972 75648  | .8020 36034  | .6847 15420  | .2119 55117  |
| .6402  | .5973 55849  | .8019 76303  | .6848 36619  | .2120 23595  |
| .6403  | .5974 36043  | .8019 16563  | .6849 57824  | .2120 92084  |
| .6404  | .5975 16232  | .8018 56816  | .6850 79037  | .2121 60566  |
| 0.6405 | 0.5975 96415 | 0.8017 97060 | 0.6852 00257 | 1.2122 29100 |
| .6406  | .5976 76591  | .8017 37296  | .6853 21423  | .2122 97626  |
| .6407  | .5977 56762  | .8016 77525  | .6854 42716  | .2123 66165  |
| .6408  | .5978 36927  | .8016 17745  | .6855 63956  | .2124 34715  |
| .6409  | .5979 17086  | .8015 57957  | .6856 85203  | .2125 03277  |
| 0.6410 | 0.5979 97238 | 0.8014 98161 | 0.6858 06457 | 1.2125 71852 |
| .6411  | .5980 77385  | .8014 38358  | .6859 27717  | .2126 40439  |
| .6412  | .5981 57526  | .8013 78546  | .6860 48985  | .2127 09036  |
| .6413  | .5982 37661  | .8013 18726  | .6861 70259  | .2127 77648  |
| .6414  | .5983 17790  | .8012 58898  | .6862 91540  | .2128 46272  |
| 0.6415 | 0.5983 97913 | 0.8011 99063 | 0.6864 12828 | 1.2129 14907 |
| .6416  | .5984 78030  | .8011 39219  | .6865 34123  | .2129 83554  |
| .6417  | .5985 58141  | .8010 79367  | .6866 55425  | .2130 52214  |
| .6418  | .5986 38245  | .8010 19507  | .6867 76734  | .2131 20865  |
| .6419  | .5987 18344  | .8009 59639  | .6868 98049  | .2131 89569  |
| 0.6420 | 0.5987 98437 | 0.8008 99764 | 0.6870 19372 | 1.2132 58265 |
| .6421  | .5988 78524  | .8008 39880  | .6871 40701  | .2133 26973  |
| .6422  | .5989 58605  | .8007 79988  | .6872 62037  | .2133 95693  |
| .6423  | .5990 38680  | .8007 20082  | .6873 83380  | .2134 64425  |
| .6424  | .5991 18749  | .8006 60180  | .6875 04730  | .2135 33170  |
| 0.6425 | 0.5991 98812 | 0.8006 00264 | 0.6876 26087 | 1.2136 01926 |
| .6426  | .5992 78869  | .8005 40340  | .6877 47450  | .2136 70695  |
| .6427  | .5993 58921  | .8004 80409  | .6878 68821  | .2137 39476  |
| .6428  | .5994 38966  | .8004 20469  | .6879 90198  | .2138 08269  |
| .6429  | .5995 19005  | .8003 60521  | .6881 11583  | .2138 77074  |
| 0.6430 | 0.5995 99038 | 0.8003 00565 | 0.6882 32974 | 1.2139 45891 |
| .6431  | .5996 79065  | .8002 40601  | .6883 54372  | .2140 14720  |
| .6432  | .5997 59086  | .8001 80629  | .6884 75777  | .2140 83562  |
| .6433  | .5998 39101  | .8001 20649  | .6885 97168  | .2141 52415  |
| .6434  | .5999 19110  | .8000 60661  | .6887 18607  | .2142 21261  |
| 0.6435 | 0.5999 99113 | 0.8000 00665 | 0.6888 40033 | 1.2142 90159 |
| .6436  | .6000 79110  | .7999 40661  | .6889 61465  | .2143 59049  |
| .6437  | .6001 59101  | .7998 80649  | .6890 82905  | .2144 27951  |
| .6438  | .6002 39086  | .7998 20630  | .6892 04351  | .2144 96866  |
| .6439  | .6003 19065  | .7997 60602  | .6893 25804  | .2145 65792  |
| 0.6440 | 0.6003 99038 | 0.7997 00566 | 0.6894 47264 | 1.2146 34731 |
| .6441  | .6004 79005  | .7996 40522  | .6895 68731  | .2147 03682  |
| .6442  | .6005 58966  | .7995 80470  | .6896 90205  | .2147 72645  |
| .6443  | .6006 38921  | .7995 20410  | .6898 11685  | .2148 41620  |
| .6444  | .6007 18870  | .7994 60342  | .6899 33173  | .2149 10607  |
| 0.6445 | 0.6007 98813 | 0.7994 00266 | 0.6900 54667 | 1.2149 79606 |
| .6446  | .6008 78751  | .7993 40182  | .6901 76169  | .2150 48618  |
| .6447  | .6009 58682  | .7992 80091  | .6902 97677  | .2151 17642  |
| .6448  | .6010 38607  | .7992 19991  | .6904 19192  | .2151 86678  |
| .6449  | .6011 18526  | .7991 59883  | .6905 40715  | .2152 55726  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.6450 | 0.6011 98439 | 0.7990 99767 | 0.6990 69941 | 1.2117 14786 |
| .6451  | .6012 78345  | .7990 39643  | .6997 83780  | .2153 33358  |
| .6452  | .6013 58246  | .7989 79511  | .6999 07392  | .2154 62942  |
| .6453  | .6014 38141  | .7989 19371  | .6910 36973  | .2155 92529  |
| .6454  | .6015 18030  | .7988 59224  | .6911 66489  | .2156 01148  |
| 0.6455 | 0.6015 97913 | 0.7987 99068 | 0.6912 96002 | 1.2156 70269 |
| .6456  | .6016 77790  | .7987 38904  | .6913 25567  | .2157 39402  |
| .6457  | .6017 57661  | .7986 78732  | .6914 55149  | .2158 08547  |
| .6458  | .6018 37526  | .7986 18553  | .6915 84735  | .2158 77704  |
| .6459  | .6019 17385  | .7985 58365  | .6917 14316  | .2159 46874  |
| 0.6460 | 0.6019 97238 | 0.7984 98169 | 0.6918 43914 | 1.2159 16066 |
| .6461  | .6020 77084  | .7984 37965  | .6919 73513  | .2160 85250  |
| .6462  | .6021 56925  | .7983 77754  | .6921 03131  | .2161 54456  |
| .6463  | .6022 36760  | .7983 17534  | .6922 32762  | .2162 23674  |
| .6464  | .6023 16589  | .7982 57306  | .6923 62406  | .2163 92904  |
| 0.6465 | 0.6023 96411 | 0.7981 97071 | 0.6924 92068 | 1.2163 62147 |
| .6466  | .6024 76228  | .7981 36827  | .6926 21648  | .2164 31401  |
| .6467  | .6025 56039  | .7980 76575  | .6927 51235  | .2165 00668  |
| .6468  | .6026 35843  | .7980 16316  | .6928 80846  | .2165 69947  |
| .6469  | .6027 15642  | .7979 56048  | .6929 73609  | .2166 39238  |
| 0.6470 | 0.6027 95435 | 0.7978 95773 | 0.6930 98276 | 1.2167 08542 |
| .6471  | .6028 75221  | .7978 35489  | .6932 27890  | .2167 77857  |
| .6472  | .6029 55002  | .7977 75198  | .6933 57522  | .2168 47185  |
| .6473  | .6030 34776  | .7977 14898  | .6934 87179  | .2169 16525  |
| .6474  | .6031 14545  | .7976 54591  | .6936 16816  | .2169 85877  |
| 0.6475 | 0.6031 94307 | 0.7975 94275 | 0.6937 46417 | 1.2170 55241 |
| .6476  | .6032 74064  | .7975 33952  | .6939 76026  | .2171 24617  |
| .6477  | .6033 53814  | .7974 73620  | .6940 46142  | .2171 94006  |
| .6478  | .6034 33558  | .7974 13281  | .6940 75965  | .2172 63407  |
| .6479  | .6035 13297  | .7973 52934  | .6941 89595  | .2173 32819  |
| 0.6480 | 0.6035 93029 | 0.7972 92578 | 0.6943 11331 | 1.2174 02244 |
| .6481  | .6036 72755  | .7972 32215  | .6944 30075  | .2174 71682  |
| .6482  | .6037 52475  | .7971 71844  | .6945 54826  | .2175 41131  |
| .6483  | .6038 32189  | .7971 11465  | .6946 76583  | .2176 10593  |
| .6484  | .6039 11898  | .7970 51077  | .6947 98348  | .2176 80066  |
| 0.6485 | 0.6039 91600 | 0.7969 90682 | 0.6949 20119 | 1.2177 49552 |
| .6486  | .6040 71296  | .7969 30279  | .6950 41898  | .2178 19050  |
| .6487  | .6041 50986  | .7968 69868  | .6951 63683  | .2178 88561  |
| .6488  | .6042 30670  | .7968 09449  | .6952 85475  | .2179 58083  |
| .6489  | .6043 10348  | .7967 49022  | .6954 07275  | .2180 27618  |
| 0.6490 | 0.6043 90019 | 0.7966 88587 | 0.6955 29081 | 1.2180 97165 |
| .6491  | .6044 69685  | .7966 28144  | .6956 50894  | .2181 66724  |
| .6492  | .6045 49345  | .7965 67693  | .6957 72714  | .2182 36285  |
| .6493  | .6046 28999  | .7965 07234  | .6958 94541  | .2183 05878  |
| .6494  | .6047 08647  | .7964 46767  | .6960 16376  | .2183 75474  |
| 0.6495 | 0.6047 88288 | 0.7963 86292 | 0.6961 38217 | 1.2184 45081 |
| .6496  | .6048 67924  | .7963 25809  | .6962 60065  | .2185 14701  |
| .6497  | .6049 47553  | .7962 65319  | .6963 81919  | .2185 84333  |
| .6498  | .6050 27177  | .7962 04820  | .6965 03781  | .2186 53978  |
| .6499  | .6051 06794  | .7961 44313  | .6966 25650  | .2187 23634  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.6500 | 0.6051 86406 | 0.7960 83799 | 0.6967 47526 | 1.2187 93303 |
| .6501  | .6052 66011  | .7960 23276  | .6968 69409  | .2188 62984  |
| .6502  | .6053 45610  | .7959 62745  | .6969 91299  | .2189 32677  |
| .6503  | .6054 25204  | .7959 02207  | .6971 13195  | .2190 02382  |
| .6504  | .6055 04791  | .7958 41660  | .6972 35099  | .2190 72099  |
| 0.6505 | 0.6055 84372 | 0.7957 81106 | 0.6973 57010 | 1.2191 41829 |
| .6506  | .6056 63947  | .7957 20543  | .6974 78928  | .2192 11571  |
| .6507  | .6057 43516  | .7956 59973  | .6976 00852  | .2192 81325  |
| .6508  | .6058 23079  | .7955 99395  | .6977 22784  | .2193 51091  |
| .6509  | .6059 02636  | .7955 38808  | .6978 44722  | .2194 20869  |
| 0.6510 | 0.6059 82187 | 0.7954 78214 | 0.6979 66668 | 1.2194 90660 |
| .6511  | .6060 61732  | .7954 17612  | .6980 88621  | .2195 60463  |
| .6512  | .6061 41270  | .7953 57002  | .6982 10580  | .2196 30278  |
| .6513  | .6062 20803  | .7952 96384  | .6983 32547  | .2197 00105  |
| .6514  | .6063 00330  | .7952 35758  | .6984 54520  | .2197 69944  |
| 0.6515 | 0.6063 79850 | 0.7951 75124 | 0.6985 76501 | 1.2198 39796 |
| .6516  | .6064 59365  | .7951 14482  | .6986 98488  | .2199 09659  |
| .6517  | .6065 38873  | .7950 53832  | .6988 20483  | .2199 79535  |
| .6518  | .6066 18375  | .7949 93174  | .6989 42484  | .2200 49424  |
| .6519  | .6066 97872  | .7949 32508  | .6990 64492  | .2201 19324  |
| 0.6520 | 0.6067 77362 | 0.7948 71834 | 0.6991 86506 | 1.2201 89236 |
| .6521  | .6068 56846  | .7948 11153  | .6993 08530  | .2202 59161  |
| .6522  | .6069 36324  | .7947 50463  | .6994 30560  | .2203 29098  |
| .6523  | .6070 15796  | .7946 89765  | .6995 52596  | .2203 99047  |
| .6524  | .6070 95262  | .7946 29060  | .6996 74639  | .2204 69009  |
| 0.6525 | 0.6071 74722 | 0.7945 68346 | 0.6997 96690 | 1.2205 38982 |
| .6526  | .6072 54176  | .7945 07625  | .6999 18747  | .2206 08966  |
| .6527  | .6073 33623  | .7944 46896  | .7000 40812  | .2206 78966  |
| .6528  | .6074 13065  | .7943 86158  | .7001 62863  | .2207 48976  |
| .6529  | .6074 92501  | .7943 25413  | .7002 84961  | .2208 18999  |
| 0.6530 | 0.6075 71930 | 0.7942 64660 | 0.7004 07047 | 1.2208 89033 |
| .6531  | .6076 51354  | .7942 03899  | .7005 29139  | .2209 59080  |
| .6532  | .6077 30771  | .7941 43129  | .7006 51239  | .2210 29139  |
| .6533  | .6078 10182  | .7940 82352  | .7007 73345  | .2210 99210  |
| .6534  | .6078 89587  | .7940 21567  | .7008 95459  | .2211 69294  |
| 0.6535 | 0.6079 68987 | 0.7939 60774 | 0.7010 17579 | 1.2212 39389 |
| .6536  | .6080 48380  | .7938 99974  | .7011 39706  | .2213 09497  |
| .6537  | .6081 27767  | .7938 39165  | .7012 61841  | .2213 79617  |
| .6538  | .6082 07147  | .7937 78348  | .7013 83982  | .2214 49750  |
| .6539  | .6082 86522  | .7937 17523  | .7015 06131  | .2215 19894  |
| 0.6540 | 0.6083 65891 | 0.7936 56691 | 0.7016 28286 | 1.2215 90051 |
| .6541  | .6084 45254  | .7935 95850  | .7017 50449  | .2216 60220  |
| .6542  | .6085 24610  | .7935 35002  | .7018 72618  | .2217 30401  |
| .6543  | .6086 03961  | .7934 74145  | .7019 94795  | .2218 00594  |
| .6544  | .6086 83305  | .7934 13281  | .7021 16978  | .2218 70800  |
| 0.6545 | 0.6087 62643 | 0.7933 52409 | 0.7022 39169 | 1.2219 41018 |
| .6546  | .6088 41975  | .7932 91528  | .7023 61367  | .2220 11248  |
| .6547  | .6089 21302  | .7932 30640  | .7024 83571  | .2220 81490  |
| .6548  | .6090 00622  | .7931 69744  | .7026 05783  | .2221 51744  |
| .6549  | .6090 79935  | .7931 08840  | .7027 28002  | .2222 22011  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.6550 | 0.6091 59243 | 0.7930 47928 | 0.7028 50327 | 1.1222 04290 |
| .6551  | .6092 38545  | .7929 87008  | .7029 72460  | .1223 02581  |
| .6552  | .6093 17841  | .7929 26080  | .7030 94700  | .1224 32684  |
| .6553  | .6093 97130  | .7928 65145  | .7032 16947  | .1225 03200  |
| .6554  | .6094 76414  | .7928 04201  | .7033 39201  | .1225 73528  |
| 0.6555 | 0.6095 55691 | 0.7927 43249 | 0.7034 61461 | 1.1226 43868 |
| .6556  | .6096 34962  | .7926 82290  | .7035 83729  | .1227 14220  |
| .6557  | .6097 14228  | .7926 21322  | .7037 06004  | .1227 84505  |
| .6558  | .6097 93487  | .7925 60347  | .7038 28286  | .1228 54961  |
| .6559  | .6098 72740  | .7924 99364  | .7039 50575  | .1229 25350  |
| 0.6560 | 0.6099 51987 | 0.7924 38372 | 0.7040 72871 | 1.1229 95751 |
| .6561  | .6100 31227  | .7923 77373  | .7041 95174  | .1230 66165  |
| .6562  | .6101 10462  | .7923 16366  | .7043 17485  | .1231 36591  |
| .6563  | .6101 89691  | .7922 55351  | .7043 39802  | .1232 07028  |
| .6564  | .6102 68915  | .7921 94328  | .7045 62126  | .1232 77470  |
| 0.6565 | 0.6103 48129 | 0.7921 33297 | 0.7046 84457 | 1.1233 47941 |
| .6566  | .6104 27340  | .7920 72259  | .7048 06796  | .1234 18415  |
| .6567  | .6105 06544  | .7920 11212  | .7049 29141  | .1234 88902  |
| .6568  | .6105 85742  | .7919 50157  | .7050 51493  | .1235 59401  |
| .6569  | .6106 64934  | .7918 89095  | .7051 73853  | .1236 29912  |
| 0.6570 | 0.6107 44120 | 0.7918 28024 | 0.7052 96219 | 1.1237 00436 |
| .6571  | .6108 23300  | .7917 66946  | .7054 18593  | .1237 70972  |
| .6572  | .6109 02473  | .7917 05860  | .7055 40973  | .1238 41520  |
| .6573  | .6109 81641  | .7916 44765  | .7056 63361  | .1239 12080  |
| .6574  | .6110 60802  | .7915 83663  | .7057 85756  | .1239 82652  |
| 0.6575 | 0.6111 39957 | 0.7915 22553 | 0.7059 08158 | 1.1240 53237 |
| .6576  | .6112 19107  | .7914 61435  | .7060 30567  | .1241 23834  |
| .6577  | .6112 98250  | .7914 00309  | .7061 52982  | .1241 94443  |
| .6578  | .6113 77387  | .7913 39176  | .7062 75405  | .1242 65065  |
| .6579  | .6114 56518  | .7912 78034  | .7063 97835  | .1243 35698  |
| 0.6580 | 0.6115 35642 | 0.7912 16884 | 0.7065 20273 | 1.1244 06344 |
| .6581  | .6116 14761  | .7911 55727  | .7066 42717  | .1244 77002  |
| .6582  | .6116 93873  | .7910 94561  | .7067 65168  | .1245 47673  |
| .6583  | .6117 72980  | .7910 33388  | .7068 87626  | .1246 18355  |
| .6584  | .6118 52080  | .7909 72207  | .7070 10092  | .1246 89050  |
| 0.6585 | 0.6119 31174 | 0.7909 11018 | 0.7071 32564 | 1.1247 59757 |
| .6586  | .6120 10262  | .7908 49821  | .7072 55044  | .1248 30477  |
| .6587  | .6120 89344  | .7907 88616  | .7073 77530  | .1249 01208  |
| .6588  | .6121 68420  | .7907 27403  | .7075 00024  | .1249 71952  |
| .6589  | .6122 47490  | .7906 66182  | .7076 22525  | .1250 42708  |
| 0.6590 | 0.6123 26553 | 0.7906 04953 | 0.7077 45032 | 1.1251 13477 |
| .6591  | .6124 05611  | .7905 43717  | .7078 67547  | .1251 84257  |
| .6592  | .6124 84662  | .7904 82472  | .7079 90069  | .1252 55050  |
| .6593  | .6125 63707  | .7904 21220  | .7081 12598  | .1253 25855  |
| .6594  | .6126 42746  | .7903 59959  | .7082 35134  | .1253 96673  |
| 0.6595 | 0.6127 21779 | 0.7902 98691 | 0.7083 57678 | 1.1254 67502 |
| .6596  | .6128 00806  | .7902 37415  | .7084 80228  | .1255 38344  |
| .6597  | .6128 79827  | .7901 76131  | .7086 02785  | .1256 09198  |
| .6598  | .6129 58841  | .7901 14839  | .7087 25350  | .1256 80065  |
| .6599  | .6130 37850  | .7900 53539  | .7088 47921  | .1257 50944  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.6600 | 0.6131 16852 | 0.7899 92231 | 0.7089 70500 | 1.2258 21834 |
| .6601  | .6131 95848  | .7899 30916  | .7090 93086  | .2258 92738  |
| .6602  | .6132 74838  | .7898 69592  | .7092 15679  | .2259 63653  |
| .6603  | .6133 53822  | .7898 08261  | .7093 38278  | .2260 34581  |
| .6604  | .6134 32800  | .7897 46922  | .7094 60885  | .2261 05521  |
| 0.6605 | 0.6135 11771 | 0.7896 85574 | 0.7095 83500 | 1.2261 76473 |
| .6606  | .6135 90737  | .7896 24219  | .7097 06121  | .2262 47437  |
| .6607  | .6136 69696  | .7895 62856  | .7098 28749  | .2263 18414  |
| .6608  | .6137 48649  | .7895 01485  | .7099 51384  | .2263 89403  |
| .6609  | .6138 27597  | .7894 40106  | .7100 74027  | .2264 60404  |
| 0.6610 | 0.6139 06533 | 0.7893 78720 | 0.7101 96676 | 1.2265 31418 |
| .6611  | .6139 85472  | .7893 17325  | .7103 19333  | .2266 02444  |
| .6612  | .6140 34401  | .7892 55923  | .7104 41997  | .2266 73482  |
| .6613  | .6141 43324  | .7891 94512  | .7105 64668  | .2267 44532  |
| .6614  | .6142 22240  | .7891 33094  | .7106 87346  | .2268 15595  |
| 0.6615 | 0.6143 01150 | 0.7890 71668 | 0.7108 10031 | 1.2268 86670 |
| .6616  | .6143 80054  | .7890 10234  | .7109 32723  | .2269 57757  |
| .6617  | .6144 58952  | .7889 48792  | .7110 55423  | .2270 28856  |
| .6618  | .6145 37844  | .7888 87342  | .7111 78129  | .2270 99968  |
| .6619  | .6146 16730  | .7888 25884  | .7113 00843  | .2271 71092  |
| 0.6620 | 0.6146 95609 | 0.7887 64419 | 0.7114 23563 | 1.2272 42228 |
| .6621  | .6147 74483  | .7887 02945  | .7115 46291  | .2273 13377  |
| .6622  | .6148 53350  | .7886 41464  | .7116 69026  | .2273 84537  |
| .6623  | .6149 32211  | .7885 79974  | .7117 91768  | .2274 55710  |
| .6624  | .6150 11066  | .7885 18477  | .7119 14517  | .2275 26896  |
| 0.6625 | 0.6150 89915 | 0.7884 56972 | 0.7120 37273 | 1.2275 98093 |
| .6626  | .6151 68757  | .7883 95459  | .7121 60037  | .2276 69303  |
| .6627  | .6152 47594  | .7883 33938  | .7122 82807  | .2277 40525  |
| .6628  | .6153 26424  | .7882 72410  | .7124 05585  | .2278 11760  |
| .6629  | .6154 05248  | .7882 10873  | .7125 28369  | .2278 83006  |
| 0.6630 | 0.6154 84066 | 0.7881 49329 | 0.7126 51161 | 1.2279 54265 |
| .6631  | .6155 62878  | .7880 87776  | .7127 73960  | .2280 25537  |
| .6632  | .6156 41684  | .7880 26216  | .7128 96766  | .2280 96820  |
| .6633  | .6157 20483  | .7879 64648  | .7130 19590  | .2281 68116  |
| .6634  | .6157 99277  | .7879 03072  | .7131 42400  | .2282 39424  |
| 0.6635 | 0.6158 78064 | 0.7878 41488 | 0.7132 65228 | 1.2283 10744 |
| .6636  | .6159 56845  | .7877 79896  | .7133 88062  | .2283 82077  |
| .6637  | .6160 35620  | .7877 18297  | .7135 10904  | .2284 53422  |
| .6638  | .6161 14389  | .7876 56689  | .7136 33753  | .2285 24779  |
| .6639  | .6161 93151  | .7875 95074  | .7137 56609  | .2285 96149  |
| 0.6640 | 0.6162 71908 | 0.7875 33451 | 0.7138 79472 | 1.2286 67531 |
| .6641  | .6163 50658  | .7874 71820  | .7140 02342  | .2287 38925  |
| .6642  | .6164 29402  | .7874 10181  | .7141 25220  | .2288 10331  |
| .6643  | .6165 08140  | .7873 48534  | .7142 48105  | .2288 81750  |
| .6644  | .6165 86872  | .7872 86879  | .7143 70996  | .2289 53181  |
| 0.6645 | 0.6166 65597 | 0.7872 25216 | 0.7144 93895 | 1.2290 24624 |
| .6646  | .6167 44317  | .7871 63546  | .7146 16801  | .2290 96079  |
| .6647  | .6168 23030  | .7871 01837  | .7147 39714  | .2291 67547  |
| .6648  | .6169 01737  | .7870 40181  | .7148 62635  | .2292 39027  |
| .6649  | .6169 80438  | .7869 78487  | .7149 85562  | .2293 10520  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.6650 | 0.6170 59133 | 0.7869 16785 | 0.7151 08497 | 1.2293 82025 |
| .6651  | .6171 37821  | .7868 55075  | .7152 31439  | .2294 53542  |
| .6652  | .6172 16504  | .7867 93358  | .7153 54388  | .2295 25071  |
| .6653  | .6172 95180  | .7867 31632  | .7154 77344  | .2295 96612  |
| .6654  | .6173 73850  | .7866 69899  | .7155 00307  | .2296 68166  |
| 0.6655 | 0.6174 52514 | 0.7866 08157 | 0.7157 23277 | 1.2297 39732 |
| .6656  | .6175 31172  | .7865 46408  | .7158 46255  | .2298 11311  |
| .6657  | .6176 09823  | .7864 84651  | .7159 69240  | .2298 82902  |
| .6658  | .6176 88469  | .7864 22886  | .7160 92231  | .2299 54505  |
| .6659  | .6177 67108  | .7863 61113  | .7162 15230  | .2300 26120  |
| 0.6660 | 0.6178 45741 | 0.7862 99333 | 0.7163 38237 | 1.2300 97748 |
| .6661  | .6179 24368  | .7862 37544  | .7164 61250  | .2301 69388  |
| .6662  | .6180 02988  | .7861 75748  | .7165 84270  | .2302 41040  |
| .6663  | .6180 81603  | .7861 13944  | .7167 07293  | .2303 12705  |
| .6664  | .6181 60211  | .7860 52131  | .7168 30333  | .2303 84382  |
| 0.6665 | 0.6182 38813 | 0.7859 90311 | 0.7169 53375 | 1.2304 56071 |
| .6666  | .6183 17409  | .7859 28484  | .7170 76424  | .2305 27772  |
| .6667  | .6183 95999  | .7858 66648  | .7171 99481  | .2305 99486  |
| .6668  | .6184 74583  | .7858 04804  | .7173 22544  | .2306 71212  |
| .6669  | .6185 53160  | .7857 42953  | .7174 45615  | .2307 42951  |
| 0.6670 | 0.6186 31731 | 0.7856 81094 | 0.7175 68693 | 1.2308 14701 |
| .6671  | .6187 10296  | .7856 19227  | .7176 91778  | .2308 86464  |
| .6672  | .6187 88855  | .7855 57352  | .7178 14870  | .2309 58240  |
| .6673  | .6188 67408  | .7854 95469  | .7179 37969  | .2310 30027  |
| .6674  | .6189 45954  | .7854 33578  | .7180 61076  | .2311 01827  |
| 0.6675 | 0.6190 24494 | 0.7853 71680 | 0.7181 84190 | 1.2311 73639 |
| .6676  | .6191 03028  | .7853 09773  | .7183 07311  | .2312 45464  |
| .6677  | .6191 81556  | .7852 47859  | .7184 30439  | .2313 17301  |
| .6678  | .6192 60078  | .7851 85937  | .7185 53574  | .2313 89150  |
| .6679  | .6193 38593  | .7851 24007  | .7186 76717  | .2314 61012  |
| 0.6680 | 0.6194 17103 | 0.7850 62069 | 0.7187 99866 | 1.2315 32885 |
| .6681  | .6194 95606  | .7850 00124  | .7189 23023  | .2316 04772  |
| .6682  | .6195 74103  | .7849 38170  | .7190 46187  | .2316 76670  |
| .6683  | .6196 52594  | .7848 76209  | .7191 69359  | .2317 48581  |
| .6684  | .6197 31078  | .7848 14240  | .7192 92537  | .2318 20504  |
| 0.6685 | 0.6198 09556 | 0.7847 52263 | 0.7194 15723 | 1.2318 92439 |
| .6686  | .6198 88028  | .7846 90278  | .7195 38916  | .2319 64387  |
| .6687  | .6199 66494  | .7846 28285  | .7196 62116  | .2320 36347  |
| .6688  | .6200 44954  | .7845 66285  | .7197 85323  | .2321 08319  |
| .6689  | .6201 23408  | .7845 04276  | .7199 08537  | .2321 80304  |
| 0.6690 | 0.6202 01855 | 0.7844 42260 | 0.7200 31759 | 1.2322 52301 |
| .6691  | .6202 80296  | .7843 80236  | .7201 54988  | .2323 24311  |
| .6692  | .6203 58731  | .7843 18204  | .7202 78224  | .2323 96332  |
| .6693  | .6204 37160  | .7842 56164  | .7204 01467  | .2324 68366  |
| .6694  | .6205 15582  | .7841 94116  | .7205 24717  | .2325 40412  |
| 0.6695 | 0.6205 93999 | 0.7841 32061 | 0.7206 47975 | 1.2326 12471 |
| .6696  | .6206 72409  | .7840 69998  | .7207 71240  | .2326 84542  |
| .6697  | .6207 50813  | .7840 07926  | .7208 94512  | .2327 56625  |
| .6698  | .6208 29210  | .7839 45847  | .7210 17791  | .2328 28721  |
| .6699  | .6209 07602  | .7838 83761  | .7211 41078  | .2329 00829  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 0.6700 | 0.6209 85987 | 0.7832 21666 | 0.7212 64371 | 1.2329 72949 |
| .6701  | .6210 64366  | .7837 59563  | .7213 87672  | .2330 45082  |
| .6702  | .6211 42739  | .7836 97453  | .7215 10980  | .2331 17227  |
| .6703  | .6212 21106  | .7836 35335  | .7216 34296  | .2331 89384  |
| .6704  | .6212 99466  | .7835 73209  | .7217 57618  | .2332 61554  |
| 0.6705 | 0.6213 77820 | 0.7835 11075 | 0.7218 80948 | 1.2333 33736 |
| .6706  | .6214 56168  | .7834 48933  | .7220 04285  | .2334 05930  |
| .6707  | .6215 34510  | .7833 86784  | .7221 27629  | .2334 78136  |
| .6708  | .6216 12846  | .7833 24626  | .7222 50981  | .2335 50355  |
| .6709  | .6216 91175  | .7832 62461  | .7223 74339  | .2336 22587  |
| 0.6710 | 0.6217 69498 | 0.7832 00288 | 0.7224 97705 | 1.2336 94830 |
| .6711  | .6218 47815  | .7831 38107  | .7226 21078  | .2337 67086  |
| .6712  | .6219 26126  | .7830 75919  | .7227 44459  | .2338 39354  |
| .6713  | .6220 04430  | .7830 13722  | .7228 67846  | .2339 11635  |
| .6714  | .6220 82728  | .7829 51518  | .7229 91241  | .2339 83928  |
| 0.6715 | 0.6221 61020 | 0.7828 89305 | 0.7231 14643 | 1.2340 56233 |
| .6716  | .6222 39306  | .7828 27085  | .7232 38052  | .2341 28551  |
| .6717  | .6223 17586  | .7827 64858  | .7233 61469  | .2342 00881  |
| .6718  | .6223 95859  | .7827 02622  | .7234 84892  | .2342 73223  |
| .6719  | .6224 74126  | .7826 40378  | .7236 08323  | .2343 45578  |
| 0.6720 | 0.6225 52387 | 0.7825 78127 | 0.7237 31761 | 1.2344 17645 |
| .6721  | .6226 30642  | .7825 15868  | .7238 55207  | .2344 90324  |
| .6722  | .6227 08891  | .7824 53601  | .7239 78660  | .2345 62716  |
| .6723  | .6227 87133  | .7823 91326  | .7241 02119  | .2346 35120  |
| .6724  | .6228 65369  | .7823 29044  | .7242 25587  | .2347 07536  |
| 0.6725 | 0.6229 43599 | 0.7822 66753 | 0.7243 49061 | 1.2347 79965 |
| .6726  | .6230 21822  | .7822 04455  | .7244 72543  | .2348 52406  |
| .6727  | .6231 00039  | .7821 42149  | .7245 96031  | .2349 24860  |
| .6728  | .6231 78251  | .7820 79835  | .7247 19528  | .2349 97325  |
| .6729  | .6232 56455  | .7820 17513  | .7248 43031  | .2350 69803  |
| 0.6730 | 0.6233 34654 | 0.7819 55184 | 0.7249 66542 | 1.2351 42294 |
| .6731  | .6234 12846  | .7818 92846  | .7250 90059  | .2352 14797  |
| .6732  | .6234 91033  | .7818 30501  | .7252 13584  | .2352 87312  |
| .6733  | .6235 69213  | .7817 68148  | .7253 37117  | .2353 59840  |
| .6734  | .6236 47386  | .7817 05787  | .7254 60656  | .2354 32379  |
| 0.6735 | 0.6237 25554 | 0.7816 43418 | 0.7255 84203 | 1.2355 04932 |
| .6736  | .6238 03715  | .7815 81042  | .7257 07757  | .2355 77496  |
| .6737  | .6238 81870  | .7815 18658  | .7258 31319  | .2356 50073  |
| .6738  | .6239 60019  | .7814 56266  | .7259 54887  | .2357 22662  |
| .6739  | .6240 38161  | .7813 93866  | .7260 78463  | .2357 95264  |
| 0.6740 | 0.6241 16297 | 0.7813 31458 | 0.7262 02046 | 1.2358 67878 |
| .6741  | .6241 94427  | .7812 69042  | .7263 25637  | .2359 40505  |
| .6742  | .6242 72551  | .7812 06619  | .7264 49235  | .2360 13143  |
| .6743  | .6243 50669  | .7811 44188  | .7265 72840  | .2360 85794  |
| .6744  | .6244 28780  | .7810 81749  | .7266 96452  | .2361 58458  |
| 0.6745 | 0.6245 06885 | 0.7810 19302 | 0.7268 20071 | 1.2362 31134 |
| .6746  | .6245 84984  | .7809 56848  | .7269 43698  | .2363 03822  |
| .6747  | .6246 63077  | .7808 94385  | .7270 67332  | .2363 76522  |
| .6748  | .6247 41163  | .7808 31915  | .7271 90973  | .2364 49235  |
| .6749  | .6248 19243  | .7807 69437  | .7273 14622  | .2365 21961  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 0.6750 | 0.6248 97317 | 0.7807 06951 | 0.7274 38278 | 1.2365 94698 |
| .6751  | .6249 75384  | .7806 44457  | .7275 61941  | .2366 67448  |
| .6752  | .6250 53446  | .7805 81956  | .7276 85611  | .2367 40211  |
| .6753  | .6251 31501  | .7805 19447  | .7278 09289  | .2368 12985  |
| .6754  | .6252 09550  | .7804 56930  | .7279 32974  | .2368 85773  |
| 0.6755 | 0.6252 87592 | 0.7803 94405 | 0.7280 56666 | 1.2369 58572 |
| .6756  | .6253 65628  | .7803 31872  | .7281 80365  | .2370 31384  |
| .6757  | .6254 43658  | .7802 69332  | .7283 04072  | .2371 04208  |
| .6758  | .6255 21682  | .7802 06784  | .7284 27786  | .2371 77045  |
| .6759  | .6255 99700  | .7801 44227  | .7285 51508  | .2372 49894  |
| 0.6760 | 0.6256 77711 | 0.7800 81664 | 0.7286 75236 | 1.2373 22755 |
| .6761  | .6257 55716  | .7800 19092  | .7287 98972  | .2373 95629  |
| .6762  | .6258 33715  | .7799 56512  | .7289 22715  | .2374 68515  |
| .6763  | .6259 11707  | .7798 93925  | .7290 46466  | .2375 41413  |
| .6764  | .6259 89694  | .7798 31330  | .7291 70224  | .2376 14324  |
| 0.6765 | 0.6260 67674 | 0.7797 68727 | 0.7292 93989 | 1.2376 87247 |
| .6766  | .6261 45647  | .7797 06117  | .7294 17761  | .2377 60183  |
| .6767  | .6262 23615  | .7796 43498  | .7295 41541  | .2378 33131  |
| .6768  | .6263 01576  | .7795 80872  | .7296 65328  | .2379 06091  |
| .6769  | .6263 79531  | .7795 18238  | .7297 89122  | .2379 79064  |
| 0.6770 | 0.6264 57480 | 0.7794 55596 | 0.7299 12924 | 1.2380 52049 |
| .6771  | .6265 35422  | .7793 92946  | .7300 36732  | .2381 25046  |
| .6772  | .6266 13358  | .7793 30289  | .7301 60549  | .2381 98056  |
| .6773  | .6266 91288  | .7792 67624  | .7302 84372  | .2382 71079  |
| .6774  | .6267 69212  | .7792 04951  | .7304 08203  | .2383 44113  |
| 0.6775 | 0.6268 47129 | 0.7791 42270 | 0.7305 32041 | 1.2384 17160 |
| .6776  | .6269 25040  | .7790 79581  | .7306 55886  | .2384 90220  |
| .6777  | .6270 02945  | .7790 16885  | .7307 79739  | .2385 63291  |
| .6778  | .6270 80844  | .7789 54181  | .7309 03599  | .2386 36376  |
| .6779  | .6271 58736  | .7788 91469  | .7310 27466  | .2387 09472  |
| 0.6780 | 0.6272 36622 | 0.7788 28749 | 0.7311 51341 | 1.2387 82581 |
| .6781  | .6273 14502  | .7787 66021  | .7312 75223  | .2388 55702  |
| .6782  | .6273 92375  | .7787 03286  | .7313 99112  | .2389 28836  |
| .6783  | .6274 70242  | .7786 40543  | .7315 23008  | .2390 01982  |
| .6784  | .6275 48103  | .7785 77792  | .7316 46912  | .2390 75141  |
| 0.6785 | 0.6276 25958 | 0.7785 15033 | 0.7317 70824 | 1.2391 48312 |
| .6786  | .6277 03806  | .7784 52267  | .7318 94742  | .2392 21495  |
| .6787  | .6277 81648  | .7783 89492  | .7320 18668  | .2392 94691  |
| .6788  | .6278 59484  | .7783 26710  | .7321 42601  | .2393 67899  |
| .6789  | .6279 37314  | .7782 63921  | .7322 66541  | .2394 41119  |
| 0.6790 | 0.6280 15137 | 0.7782 01123 | 0.7323 90489 | 1.2395 14352 |
| .6791  | .6280 92954  | .7781 38317  | .7325 14444  | .2395 87597  |
| .6792  | .6281 70765  | .7780 75504  | .7326 38407  | .2396 60855  |
| .6793  | .6282 48569  | .7780 12683  | .7327 62376  | .2397 34125  |
| .6794  | .6283 26367  | .7779 49855  | .7328 86354  | .2398 07407  |
| 0.6795 | 0.6284 04159 | 0.7778 87018 | 0.7330 10338 | 1.2398 80702 |
| .6796  | .6284 81945  | .7778 24174  | .7331 34330  | .2399 54009  |
| .6797  | .6285 59724  | .7777 61322  | .7332 58329  | .2400 27329  |
| .6798  | .6286 37497  | .7776 98462  | .7333 82335  | .2401 00661  |
| .6799  | .6287 15264  | .7776 35594  | .7335 06349  | .2401 74005  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 0.6800 | 0.6287 93024 | 0.7775 72719 | 0.7336 30370 | 1.2402 47362 |
| .6801  | .6288 70778  | .7775 09836  | .7337 54398  | .2403 20732  |
| .6802  | .6289 48526  | .7774 46945  | .7338 78434  | .2403 94113  |
| .6803  | .6290 26268  | .7773 84046  | .7340 02477  | .2404 67507  |
| .6804  | .6291 04003  | .7773 21139  | .7341 26528  | .2405 40914  |
| 0.6805 | 0.6291 81732 | 0.7772 58225 | 0.7342 50585 | 1.2406 14333 |
| .6806  | .6292 59454  | .7771 95303  | .7343 74650  | .2406 87764  |
| .6807  | .6293 37171  | .7771 32373  | .7344 98723  | .2407 61207  |
| .6808  | .6294 14881  | .7770 69436  | .7346 22803  | .2408 34664  |
| .6809  | .6294 92585  | .7770 06490  | .7347 46890  | .2409 08132  |
| 0.6810 | 0.6295 70282 | 0.7769 43537 | 0.7348 70984 | 1.2409 81613 |
| .6811  | .6296 47973  | .7768 80576  | .7349 95066  | .2410 55106  |
| .6812  | .6297 25658  | .7768 17607  | .7351 19195  | .2411 28612  |
| .6813  | .6298 03337  | .7767 54631  | .7352 43312  | .2412 02130  |
| .6814  | .6298 81009  | .7766 91647  | .7353 67436  | .2412 75661  |
| 0.6815 | 0.6299 58675 | 0.7766 28655 | 0.7354 91567 | 1.2413 49204 |
| .6816  | .6300 36335  | .7765 65655  | .7356 15706  | .2414 22759  |
| .6817  | .6301 13988  | .7765 02648  | .7357 39852  | .2414 96327  |
| .6818  | .6301 91636  | .7764 39632  | .7358 64005  | .2415 69907  |
| .6819  | .6302 69276  | .7763 76609  | .7359 88166  | .2416 43499  |
| 0.6820 | 0.6303 46911 | 0.7763 13578 | 0.7361 12334 | 1.2417 17105 |
| .6821  | .6304 24539  | .7762 50540  | .7362 36509  | .2417 90722  |
| .6822  | .6305 02161  | .7761 87493  | .7363 60692  | .2418 64352  |
| .6823  | .6305 79777  | .7761 24439  | .7364 84882  | .2419 37994  |
| .6824  | .6306 57386  | .7760 61378  | .7366 09079  | .2420 11649  |
| 0.6825 | 0.6307 34989 | 0.7759 98308 | 0.7367 33284 | 1.2420 85316 |
| .6826  | .6308 12585  | .7759 35231  | .7368 57496  | .2421 58995  |
| .6827  | .6308 90176  | .7758 72145  | .7369 81716  | .2422 32687  |
| .6828  | .6309 67760  | .7758 09053  | .7371 05943  | .2423 06392  |
| .6829  | .6310 45338  | .7757 45952  | .7372 30177  | .2423 80109  |
| 0.6830 | 0.6311 22909 | 0.7756 82843 | 0.7373 54419 | 1.2424 53838 |
| .6831  | .6312 00474  | .7756 19727  | .7374 78668  | .2425 27579  |
| .6832  | .6312 78033  | .7755 56603  | .7376 02924  | .2426 01334  |
| .6833  | .6313 55586  | .7754 93472  | .7377 27188  | .2426 75100  |
| .6834  | .6314 33132  | .7754 30332  | .7378 51459  | .2427 48879  |
| 0.6835 | 0.6315 10672 | 0.7753 67185 | 0.7379 75738 | 1.2428 22670 |
| .6836  | .6315 88205  | .7753 04030  | .7381 00024  | .2428 96474  |
| .6837  | .6316 65732  | .7752 40867  | .7382 24317  | .2429 70290  |
| .6838  | .6317 43253  | .7751 77697  | .7383 48618  | .2430 44119  |
| .6839  | .6318 20768  | .7751 14519  | .7384 72926  | .2431 17960  |
| 0.6840 | 0.6318 98276 | 0.7750 51333 | 0.7385 97242 | 1.2431 91814 |
| .6841  | .6319 75778  | .7749 88139  | .7387 21565  | .2432 65680  |
| .6842  | .6320 53274  | .7749 24938  | .7388 45895  | .2433 39558  |
| .6843  | .6321 30763  | .7748 61728  | .7389 70232  | .2434 13449  |
| .6844  | .6322 08246  | .7747 98511  | .7390 94577  | .2434 87352  |
| 0.6845 | 0.6322 85723 | 0.7747 35287 | 0.7392 18930 | 1.2435 61268 |
| .6846  | .6323 63193  | .7746 72054  | .7393 43290  | .2436 35196  |
| .6847  | .6324 40657  | .7746 08814  | .7394 67657  | .2437 09136  |
| .6848  | .6325 18115  | .7745 45566  | .7395 92032  | .2437 83089  |
| .6849  | .6325 95566  | .7744 82311  | .7397 16414  | .2438 57055  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.6850 | 0.6326 73012 | 0.7744 19047 | 0.7398 40803 | 1.2439 31033 |
| .6851  | .6327 50450  | .7743 55776  | .7399 65200  | .2440 05023  |
| .6852  | .6328 27883  | .7742 92497  | .7400 89604  | .2440 79026  |
| .6853  | .6329 05309  | .7742 29210  | .7402 14016  | .2441 53041  |
| .6854  | .6329 82729  | .7741 65916  | .7403 38435  | .2442 27068  |
| 0.6855 | 0.6330 60142 | 0.7741 02614 | 0.7404 62861 | 1.2443 01108 |
| .6856  | .6331 37549  | .7740 39304  | .7405 87295  | .2443 75161  |
| .6857  | .6332 14950  | .7739 75986  | .7407 11736  | .2444 49226  |
| .6858  | .6332 92344  | .7739 12661  | .7408 36185  | .2445 23303  |
| .6859  | .6333 69732  | .7738 49328  | .7409 60641  | .2445 97393  |
| 0.6860 | 0.6334 47114 | 0.7737 85987 | 0.7410 85104 | 1.2446 71495 |
| .6861  | .6335 24490  | .7737 22638  | .7412 09575  | .2447 45610  |
| .6862  | .6336 01859  | .7736 59282  | .7413 34053  | .2448 19737  |
| .6863  | .6336 79221  | .7735 95918  | .7414 58539  | .2448 93877  |
| .6864  | .6337 56578  | .7735 32546  | .7415 83032  | .2449 68029  |
| 0.6865 | 0.6338 33928 | 0.7734 69167 | 0.7417 07533 | 1.2450 42194 |
| .6866  | .6339 11272  | .7734 05779  | .7418 32040  | .2451 16371  |
| .6867  | .6339 88609  | .7733 42384  | .7419 56556  | .2451 90560  |
| .6868  | .6340 65940  | .7732 78982  | .7420 81079  | .2452 64762  |
| .6869  | .6341 43265  | .7732 15571  | .7422 05609  | .2453 38976  |
| 0.6870 | 0.6342 20583 | 0.7731 52153 | 0.7423 30146 | 1.2454 13203 |
| .6871  | .6342 97895  | .7730 88727  | .7424 54691  | .2454 87442  |
| .6872  | .6343 75201  | .7730 25293  | .7425 79244  | .2455 61694  |
| .6873  | .6344 52500  | .7729 61852  | .7427 03804  | .2456 35958  |
| .6874  | .6345 29793  | .7728 98403  | .7428 28371  | .2457 10235  |
| 0.6875 | 0.6346 07080 | 0.7728 34946 | 0.7429 52946 | 1.2457 84524 |
| .6876  | .6346 84360  | .7727 71482  | .7430 77528  | .2458 58825  |
| .6877  | .6347 61634  | .7727 08009  | .7432 02118  | .2459 33139  |
| .6878  | .6348 38902  | .7726 44529  | .7433 26715  | .2460 07466  |
| .6879  | .6349 16163  | .7725 81042  | .7434 51319  | .2460 81805  |
| 0.6880 | 0.6349 93418 | 0.7725 17546 | 0.7435 75931 | 1.2461 56156 |
| .6881  | .6350 70667  | .7724 54043  | .7437 00550  | .2462 30520  |
| .6882  | .6351 47909  | .7723 90532  | .7438 25177  | .2463 04896  |
| .6883  | .6352 25145  | .7723 27013  | .7439 49811  | .2463 79285  |
| .6884  | .6353 02374  | .7722 63487  | .7440 74453  | .2464 53686  |
| 0.6885 | 0.6353 79598 | 0.7721 99953 | 0.7441 99102 | 1.2465 28100 |
| .6886  | .6354 56814  | .7721 36411  | .7443 23759  | .2466 02526  |
| .6887  | .6355 34025  | .7720 72861  | .7444 48423  | .2466 76964  |
| .6888  | .6356 11229  | .7720 09304  | .7445 73094  | .2467 51416  |
| .6889  | .6356 88427  | .7719 45739  | .7446 97773  | .2468 25879  |
| 0.6890 | 0.6357 65618 | 0.7718 82166 | 0.7448 22459 | 1.2469 00355 |
| .6891  | .6358 42803  | .7718 18586  | .7449 47153  | .2469 74844  |
| .6892  | .6359 19982  | .7717 54998  | .7450 71854  | .2470 49345  |
| .6893  | .6359 97154  | .7716 91402  | .7451 96563  | .2471 23858  |
| .6894  | .6360 74320  | .7716 27798  | .7453 21279  | .2471 98384  |
| 0.6895 | 0.6361 51480 | 0.7715 64187 | 0.7454 46002 | 1.2472 72922 |
| .6896  | .6362 28633  | .7715 00568  | .7455 70733  | .2473 47473  |
| .6897  | .6363 05780  | .7714 36941  | .7456 95472  | .2474 22036  |
| .6898  | .6363 82920  | .7713 73307  | .7458 20218  | .2474 96612  |
| .6899  | .6364 60054  | .7713 09665  | .7459 44971  | .2475 71200  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.6900 | 0.6365 37182 | 0.7712 46015 | 0.7460 69732 | 1.2476 45801 |
| .6901  | .6366 14304  | .7711 82357  | .7461 94500  | .2477 20414  |
| .6902  | .6366 91419  | .7711 18692  | .7463 19276  | .2477 95040  |
| .6903  | .6367 68527  | .7710 55019  | .7464 44059  | .2478 69678  |
| .6904  | .6368 45630  | .7709 91338  | .7465 68850  | .2479 44329  |
| 0.6905 | 0.6369 22726 | 0.7709 27650 | 0.7466 93648 | 1.2480 18992 |
| .6906  | .6369 99815  | .7708 63954  | .7468 18454  | .2480 93668  |
| .6907  | .6370 76898  | .7708 00250  | .7469 43267  | .2481 68356  |
| .6908  | .6371 53975  | .7707 36539  | .7470 68088  | .2482 43056  |
| .6909  | .6372 31046  | .7706 72819  | .7471 92916  | .2483 17769  |
| 0.6910 | 0.6373 08110 | 0.7706 09092 | 0.7473 17751 | 1.2483 92495 |
| .6911  | .6373 85168  | .7705 45358  | .7474 42594  | .2484 67233  |
| .6912  | .6374 62219  | .7704 81615  | .7475 67445  | .2485 41983  |
| .6913  | .6375 39264  | .7704 17865  | .7476 92303  | .2486 16746  |
| .6914  | .6376 16302  | .7703 54107  | .7478 17168  | .2486 91522  |
| 0.6915 | 0.6376 93335 | 0.7702 90342 | 0.7479 42041 | 1.2487 66310 |
| .6916  | .6377 70361  | .7702 26569  | .7480 66921  | .2488 41110  |
| .6917  | .6378 47380  | .7701 62788  | .7481 91809  | .2489 15923  |
| .6918  | .6379 24393  | .7700 98999  | .7483 16704  | .2489 90749  |
| .6919  | .6380 01400  | .7700 35203  | .7484 41607  | .2490 65566  |
| 0.6920 | 0.6380 78400 | 0.7699 71399 | 0.7485 66517 | 1.2491 40437 |
| .6921  | .6381 55394  | .7699 07587  | .7486 91435  | .2492 15300  |
| .6922  | .6382 32382  | .7698 43768  | .7488 16361  | .2492 90175  |
| .6923  | .6383 09363  | .7697 79941  | .7489 41293  | .2493 65063  |
| .6924  | .6383 86338  | .7697 16106  | .7490 66234  | .2494 39963  |
| 0.6925 | 0.6384 63306 | 0.7696 52264 | 0.7491 91181 | 1.2495 14876 |
| .6926  | .6385 40268  | .7695 88413  | .7493 16137  | .2495 89802  |
| .6927  | .6386 17224  | .7695 24556  | .7494 41099  | .2496 64740  |
| .6928  | .6386 94173  | .7694 60690  | .7495 66069  | .2497 39690  |
| .6929  | .6387 71116  | .7693 96817  | .7496 91047  | .2498 14653  |
| 0.6930 | 0.6388 48052 | 0.7693 32936 | 0.7498 16032 | 1.2498 89628 |
| .6931  | .6389 24982  | .7692 69047  | .7499 41025  | .2499 64616  |
| .6932  | .6390 01906  | .7692 05151  | .7500 66025  | .2500 39616  |
| .6933  | .6390 78824  | .7691 41247  | .7501 91033  | .2501 14629  |
| .6934  | .6391 55734  | .7690 77335  | .7503 16048  | .2501 89655  |
| 0.6935 | 0.6392 32639 | 0.7690 13416 | 0.7504 41071 | 1.2502 64692 |
| .6936  | .6393 09537  | .7689 49488  | .7505 66101  | .2503 39743  |
| .6937  | .6393 86429  | .7688 85554  | .7506 91139  | .2504 14806  |
| .6938  | .6394 63314  | .7688 21611  | .7508 16184  | .2504 89881  |
| .6939  | .6395 40193  | .7687 57661  | .7509 41237  | .2505 64969  |
| 0.6940 | 0.6396 17066 | 0.7686 93703 | 0.7510 66297 | 1.2506 40069 |
| .6941  | .6396 93932  | .7686 29738  | .7511 91365  | .2507 15182  |
| .6942  | .6397 70792  | .7685 65764  | .7513 16440  | .2507 90307  |
| .6943  | .6398 47645  | .7685 01783  | .7514 41523  | .2508 65445  |
| .6944  | .6399 24492  | .7684 37795  | .7515 66613  | .2509 40596  |
| 0.6945 | 0.6400 01333 | 0.7683 73798 | 0.7516 91711 | 1.2510 15759 |
| .6946  | .6400 78167  | .7683 09795  | .7518 16816  | .2510 90934  |
| .6947  | .6401 54995  | .7682 45783  | .7519 41929  | .2511 66122  |
| .6948  | .6402 31816  | .7681 81764  | .7520 67050  | .2512 41323  |
| .6949  | .6403 08631  | .7681 17736  | .7521 92178  | .2513 16535  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.6950 | 0.6403 85440 | 0.7680 53702 | 0.7523 17313 | 1.2513 91761 |
| .6951  | .6404 62242  | .7679 89659  | .7524 42456  | .2514 66999  |
| .6952  | .6405 39037  | .7679 25609  | .7525 67606  | .2515 42249  |
| .6953  | .6406 15827  | .7678 61552  | .7526 92764  | .2516 17512  |
| .6954  | .6406 92610  | .7677 97486  | .7528 17930  | .2516 92788  |
| 0.6955 | 0.6407 69386 | 0.7677 33413 | 0.7529 43103 | 1.2517 68076 |
| .6956  | .6408 46156  | .7676 69332  | .7530 68283  | .2518 43377  |
| .6957  | .6409 22920  | .7676 05244  | .7531 93472  | .2519 18690  |
| .6958  | .6409 99678  | .7675 41148  | .7533 18667  | .2519 94015  |
| .6959  | .6410 76428  | .7674 77044  | .7534 43870  | .2520 69353  |
| 0.6960 | 0.6411 53173 | 0.7674 12932 | 0.7535 69081 | 1.2521 44704 |
| .6961  | .6412 29911  | .7673 48813  | .7536 94299  | .2522 20067  |
| .6962  | .6413 06643  | .7672 84686  | .7538 19525  | .2522 95443  |
| .6963  | .6413 83368  | .7672 20552  | .7539 44758  | .2523 70331  |
| .6964  | .6414 60087  | .7671 56410  | .7540 69999  | .2524 46232  |
| 0.6965 | 0.6415 36799 | 0.7670 92260 | 0.7541 95248 | 1.2525 21645 |
| .6966  | .6416 13505  | .7670 28102  | .7543 20504  | .2525 97071  |
| .6967  | .6416 90205  | .7669 63937  | .7544 45767  | .2526 72509  |
| .6968  | .6417 66898  | .7668 99764  | .7545 71038  | .2527 47960  |
| .6969  | .6418 43585  | .7668 35584  | .7546 96317  | .2528 23423  |
| 0.6970 | 0.6419 20265 | 0.7667 71396 | 0.7548 21603 | 1.2528 98899 |
| .6971  | .6419 96939  | .7667 07200  | .7549 46896  | .2529 74388  |
| .6972  | .6420 73607  | .7666 42996  | .7550 72198  | .2530 49889  |
| .6973  | .6421 50268  | .7665 78785  | .7551 97506  | .2531 25402  |
| .6974  | .6422 26922  | .7665 14566  | .7553 22823  | .2532 00928  |
| 0.6975 | 0.6423 03571 | 0.7664 50340 | 0.7554 48147 | 1.2532 76467 |
| .6976  | .6423 80212  | .7663 86106  | .7555 73478  | .2533 52018  |
| .6977  | .6424 56848  | .7663 21864  | .7556 98817  | .2534 27582  |
| .6978  | .6425 33477  | .7662 57614  | .7558 24164  | .2535 03158  |
| .6979  | .6426 10099  | .7661 93357  | .7559 49518  | .2535 78746  |
| 0.6980 | 0.6426 86715 | 0.7661 29092 | 0.7560 74879 | 1.2536 54348 |
| .6981  | .6427 63325  | .7660 64820  | .7562 00249  | .2537 29961  |
| .6982  | .6428 39928  | .7660 00539  | .7563 25625  | .2538 05588  |
| .6983  | .6429 16525  | .7659 36252  | .7564 51010  | .2538 81226  |
| .6984  | .6429 93116  | .7658 71956  | .7565 76402  | .2539 56878  |
| 0.6985 | 0.6430 69700 | 0.7658 07653 | 0.7567 01801 | 1.2540 32542 |
| .6986  | .6431 46277  | .7657 43342  | .7568 27208  | .2541 08218  |
| .6987  | .6432 22848  | .7656 79024  | .7569 52623  | .2541 83907  |
| .6988  | .6432 99413  | .7656 14698  | .7570 78045  | .2542 59609  |
| .6989  | .6433 75971  | .7655 50364  | .7572 03475  | .2543 35323  |
| 0.6990 | 0.6434 52523 | 0.7654 86022 | 0.7573 28912 | 1.2544 11049 |
| .6991  | .6435 29068  | .7654 21673  | .7574 54357  | .2544 86789  |
| .6992  | .6436 05607  | .7653 57317  | .7575 79809  | .2545 62540  |
| .6993  | .6436 82140  | .7652 92952  | .7577 05269  | .2546 38305  |
| .6994  | .6437 58666  | .7652 28580  | .7578 30737  | .2547 14081  |
| 0.6995 | 0.6438 35186 | 0.7651 64201 | 0.7579 56212 | 1.2547 89871 |
| .6996  | .6439 11699  | .7650 99813  | .7580 81695  | .2548 65673  |
| .6997  | .6439 88206  | .7650 35418  | .7582 07185  | .2549 41487  |
| .6998  | .6440 64706  | .7649 71016  | .7583 32683  | .2550 17314  |
| .6999  | .6441 41200  | .7649 06605  | .7584 58189  | .2550 93154  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.7000 | 0.6442 17687 | 0.7648 42187 | 0.7585 83702 | 1.2551 69006 |
| .7001  | .6442 94168  | .7647 77762  | .7587 09223  | .2552 44870  |
| .7002  | .6443 70643  | .7647 13328  | .7588 34751  | .2553 20747  |
| .7003  | .6444 47111  | .7646 48888  | .7589 60287  | .2553 96637  |
| .7004  | .6445 23573  | .7645 84439  | .7590 85830  | .2554 72540  |
| 0.7005 | 0.6446 00028 | 0.7645 19983 | 0.7592 11381 | 1.2555 48454 |
| .7006  | .6446 76477  | .7644 55519  | .7593 36940  | .2556 24382  |
| .7007  | .6447 52919  | .7643 91048  | .7594 62506  | .2557 00322  |
| .7008  | .6448 29355  | .7643 26568  | .7595 88080  | .2557 76274  |
| .7009  | .6449 05784  | .7642 62082  | .7597 13661  | .2558 52239  |
| 0.7010 | 0.6449 82207 | 0.7641 97587 | 0.7598 39250 | 1.2559 28217 |
| .7011  | .6450 58624  | .7641 33085  | .7599 64847  | .2560 04207  |
| .7012  | .6451 35034  | .7640 68576  | .7600 90451  | .2560 80210  |
| .7013  | .6452 11437  | .7640 04058  | .7602 16063  | .2561 56225  |
| .7014  | .6452 87835  | .7639 39533  | .7603 41682  | .2562 32253  |
| 0.7015 | 0.6453 64225 | 0.7638 75001 | 0.7604 67309 | 1.2563 08294 |
| .7016  | .6454 40610  | .7638 10460  | .7605 92944  | .2563 84347  |
| .7017  | .6455 16987  | .7637 45913  | .7607 18586  | .2564 60412  |
| .7018  | .6455 93359  | .7636 81357  | .7608 44236  | .2565 36490  |
| .7019  | .6456 69724  | .7636 16794  | .7609 69894  | .2566 12581  |
| 0.7020 | 0.6457 46082 | 0.7635 52223 | 0.7610 95559 | 1.2566 88684 |
| .7021  | .6458 22434  | .7634 87645  | .7612 21231  | .2567 64800  |
| .7022  | .6458 98780  | .7634 23059  | .7613 46912  | .2568 40929  |
| .7023  | .6459 75119  | .7633 58465  | .7614 72600  | .2569 17070  |
| .7024  | .6460 51451  | .7632 93864  | .7615 98295  | .2569 93223  |
| 0.7025 | 0.6461 27778 | 0.7632 29255 | 0.7617 23998 | 1.2570 69389 |
| .7026  | .6462 04097  | .7631 64638  | .7618 49709  | .2571 45568  |
| .7027  | .6462 80410  | .7631 00014  | .7619 75427  | .2572 21759  |
| .7028  | .6463 56717  | .7630 35382  | .7621 01153  | .2572 97963  |
| .7029  | .6464 33018  | .7629 70742  | .7622 26887  | .2573 74179  |
| 0.7030 | 0.6465 09311 | 0.7629 06095 | 0.7623 52628 | 1.2574 50408 |
| .7031  | .6465 85599  | .7628 41441  | .7624 78377  | .2575 26650  |
| .7032  | .6466 61880  | .7627 76778  | .7626 04133  | .2576 02904  |
| .7033  | .6467 38154  | .7627 12108  | .7627 29898  | .2576 79171  |
| .7034  | .6468 14422  | .7626 47431  | .7628 55669  | .2577 55450  |
| 0.7035 | 0.6468 90684 | 0.7625 82745 | 0.7629 81449 | 1.2578 31742 |
| .7036  | .6469 66939  | .7625 18052  | .7631 07236  | .2579 08046  |
| .7037  | .6470 43187  | .7624 53352  | .7632 33030  | .2579 84363  |
| .7038  | .6471 19429  | .7623 88644  | .7633 58833  | .2580 60693  |
| .7039  | .6471 95665  | .7623 23928  | .7634 84642  | .2581 37035  |
| 0.7040 | 0.6472 71894 | 0.7622 59205 | 0.7636 10460 | 1.2582 13390 |
| .7041  | .6473 48117  | .7621 94474  | .7637 36285  | .2582 89757  |
| .7042  | .6474 24353  | .7621 29735  | .7638 62118  | .2583 66137  |
| .7043  | .6475 00543  | .7620 64989  | .7639 87958  | .2584 42530  |
| .7044  | .6475 76746  | .7620 00235  | .7641 13806  | .2585 18935  |
| 0.7045 | 0.6476 52943 | 0.7619 35473 | 0.7642 39662 | 1.2585 95352 |
| .7046  | .6477 29133  | .7618 70704  | .7643 65525  | .2586 71783  |
| .7047  | .6478 05317  | .7618 05928  | .7644 91396  | .2587 48226  |
| .7048  | .6478 81494  | .7617 41143  | .7646 17275  | .2588 24681  |
| .7049  | .6479 57665  | .7616 76351  | .7647 43161  | .2589 01149  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 0.7050 | 0.6480 33830 | 0.7616 11552 | 0.7648 69055 | 1.2589 77630 |
| .7051  | .6481 09987  | .7615 46745  | .7649 94957  | .2590 54123  |
| .7052  | .6481 86139  | .7614 81930  | .7651 20866  | .2591 30629  |
| .7053  | .6482 62284  | .7614 17107  | .7652 46783  | .2592 07147  |
| .7054  | .6483 38422  | .7613 52277  | .7653 72708  | .2592 83678  |
| 0.7055 | 0.6484 14554 | 0.7612 87440 | 0.7654 98640 | 1.2593 60222 |
| .7056  | .6484 90680  | .7612 22594  | .7656 24580  | .2594 36778  |
| .7057  | .6485 66799  | .7611 57742  | .7657 50527  | .2595 13346  |
| .7058  | .6486 42911  | .7610 92881  | .7658 76482  | .2595 89928  |
| .7059  | .6487 19017  | .7610 28013  | .7660 02445  | .2596 66522  |
| 0.7060 | 0.6487 95117 | 0.7609 63137 | 0.7661 28416 | 1.2597 43128 |
| .7061  | .6488 71210  | .7608 98254  | .7662 54394  | .2598 19747  |
| .7062  | .6489 47297  | .7608 33363  | .7663 80380  | .2598 96379  |
| .7063  | .6490 23377  | .7607 68464  | .7665 06373  | .2599 73023  |
| .7064  | .6490 99450  | .7607 03558  | .7666 32374  | .2600 49680  |
| 0.7065 | 0.6491 75517 | 0.7606 38645 | 0.7667 58383 | 1.2601 26350 |
| .7066  | .6492 51578  | .7605 73723  | .7668 84399  | .2602 03032  |
| .7067  | .6493 27632  | .7605 08794  | .7670 10424  | .2602 79727  |
| .7068  | .6494 03680  | .7604 43858  | .7671 36455  | .2603 56434  |
| .7069  | .6494 79721  | .7603 78914  | .7672 62495  | .2604 33154  |
| 0.7070 | 0.6495 55756 | 0.7603 13962 | 0.7673 88542 | 1.2605 09887 |
| .7071  | .6496 31784  | .7602 49002  | .7675 14597  | .2605 86632  |
| .7072  | .6497 07805  | .7601 84035  | .7676 40659  | .2606 63390  |
| .7073  | .6497 83821  | .7601 19061  | .7677 66730  | .2607 40160  |
| .7074  | .6498 59829  | .7600 54079  | .7678 92807  | .2608 16943  |
| 0.7075 | 0.6499 35831 | 0.7599 89089 | 0.7680 18893 | 1.2608 93739 |
| .7076  | .6500 11827  | .7599 24091  | .7681 44986  | .2609 70547  |
| .7077  | .6500 87816  | .7598 59086  | .7682 71087  | .2610 47368  |
| .7078  | .6501 63799  | .7597 94074  | .7683 97196  | .2611 24201  |
| .7079  | .6502 39775  | .7597 29054  | .7685 23312  | .2612 01047  |
| 0.7080 | 0.6503 15745 | 0.7596 64026 | 0.7686 49436 | 1.2612 77906 |
| .7081  | .6503 91708  | .7595 98991  | .7687 75567  | .2613 54777  |
| .7082  | .6504 67664  | .7595 33948  | .7689 01707  | .2614 31661  |
| .7083  | .6505 43615  | .7594 68897  | .7690 27854  | .2615 08557  |
| .7084  | .6506 19558  | .7594 03839  | .7691 54008  | .2615 85466  |
| 0.7085 | 0.6506 95495 | 0.7593 38773 | 0.7692 80171 | 1.2616 62388 |
| .7086  | .6507 71426  | .7592 73700  | .7694 06341  | .2617 39322  |
| .7087  | .6508 47350  | .7592 08619  | .7695 32519  | .2618 16269  |
| .7088  | .6509 23268  | .7591 43530  | .7696 58704  | .2618 93229  |
| .7089  | .6509 99179  | .7590 78434  | .7697 84897  | .2619 70201  |
| 0.7090 | 0.6510 75083 | 0.7590 13330 | 0.7699 11098 | 1.2620 47186 |
| .7091  | .6511 50981  | .7589 48219  | .7700 37307  | .2621 24183  |
| .7092  | .6512 26873  | .7588 83100  | .7701 63523  | .2622 01193  |
| .7093  | .6513 02758  | .7588 17974  | .7702 89747  | .2622 78216  |
| .7094  | .6513 78637  | .7587 52840  | .7704 15979  | .2623 55251  |
| 0.7095 | 0.6514 54509 | 0.7586 87698 | 0.7705 42218 | 1.2624 32299 |
| .7096  | .6515 30374  | .7586 22549  | .7706 68465  | .2625 09360  |
| .7097  | .6516 06233  | .7585 57392  | .7707 94720  | .2625 86433  |
| .7098  | .6516 82086  | .7584 92228  | .7709 20982  | .2626 63519  |
| .7099  | .6517 57932  | .7584 27056  | .7710 47253  | .2627 40617  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.7100 | 0.6518 33771 | 0.7583 61876 | 0.7711 73531 | 1.2628 17728 |
| .7101  | .6519 09604  | .7582 96689  | .7712 99816  | .2628 94852  |
| .7102  | .6519 85430  | .7582 31494  | .7714 26110  | .2629 71988  |
| .7103  | .6520 61250  | .7581 66292  | .7715 52411  | .2630 48137  |
| .7104  | .6521 37084  | .7581 01062  | .7716 78719  | .2631 26298  |
| 0.7105 | 0.6522 12870 | 0.7580 35864 | 0.7718 05036 | 1.2632 03473 |
| .7106  | .6522 88671  | .7579 70639  | .7719 31360  | .2632 80660  |
| .7107  | .6523 64465  | .7579 05407  | .7720 57692  | .2633 57859  |
| .7108  | .6524 40252  | .7578 40166  | .7721 84032  | .2634 35071  |
| .7109  | .6525 16033  | .7577 74919  | .7723 10379  | .2635 12296  |
| 0.7110 | 0.6525 91807 | 0.7577 09663 | 0.7724 36734 | 1.2635 89533 |
| .7111  | .6526 67575  | .7576 44400  | .7725 63097  | .2636 66783  |
| .7112  | .6527 43336  | .7575 79130  | .7726 89467  | .2637 44046  |
| .7113  | .6528 19090  | .7575 13852  | .7728 15846  | .2638 21321  |
| .7114  | .6528 94839  | .7574 48566  | .7729 42232  | .2638 98609  |
| 0.7115 | 0.6529 70580 | 0.7573 83273 | 0.7730 68625 | 1.2639 75909 |
| .7116  | .6530 46315  | .7573 17972  | .7731 95027  | .2640 53223  |
| .7117  | .6531 22044  | .7572 52663  | .7733 21436  | .2641 30548  |
| .7118  | .6531 97766  | .7571 87347  | .7734 47853  | .2642 07887  |
| .7119  | .6532 73481  | .7571 22024  | .7735 74278  | .2642 85238  |
| 0.7120 | 0.6533 49190 | 0.7570 56693 | 0.7737 00710 | 1.2643 62602 |
| .7121  | .6534 24892  | .7569 91354  | .7738 27150  | .2644 39978  |
| .7122  | .6535 00588  | .7569 26008  | .7739 53598  | .2645 17367  |
| .7123  | .6535 76278  | .7568 60654  | .7740 80054  | .2645 94769  |
| .7124  | .6536 51960  | .7567 95292  | .7742 06517  | .2646 72183  |
| 0.7125 | 0.6537 27637 | 0.7567 29923 | 0.7743 32988 | 1.2647 49610 |
| .7126  | .6538 03306  | .7566 64547  | .7744 59467  | .2648 27050  |
| .7127  | .6538 78970  | .7565 99163  | .7745 85954  | .2649 04502  |
| .7128  | .6539 54626  | .7565 33771  | .7747 12448  | .2649 81967  |
| .7129  | .6540 30276  | .7564 68372  | .7748 38950  | .2650 59445  |
| 0.7130 | 0.6541 05920 | 0.7564 02965 | 0.7749 65460 | 1.2651 36935 |
| .7131  | .6541 81557  | .7563 37551  | .7750 91977  | .2652 14438  |
| .7132  | .6542 57187  | .7562 72129  | .7752 18503  | .2652 91953  |
| .7133  | .6543 32811  | .7562 06699  | .7753 45036  | .2653 69481  |
| .7134  | .6544 08429  | .7561 41262  | .7754 71577  | .2654 47022  |
| 0.7135 | 0.6544 84040 | 0.7560 75817 | 0.7755 98125 | 1.2655 24576 |
| .7136  | .6545 59644  | .7560 10365  | .7757 24681  | .2656 02142  |
| .7137  | .6546 35242  | .7559 44906  | .7758 51246  | .2656 79721  |
| .7138  | .6547 10833  | .7558 79438  | .7759 77817  | .2657 57312  |
| .7139  | .6547 86418  | .7558 13963  | .7761 04397  | .2658 34916  |
| 0.7140 | 0.6548 61996 | 0.7557 48481 | 0.7762 30984 | 1.2659 12533 |
| .7141  | .6549 37567  | .7556 82991  | .7763 57580  | .2659 90162  |
| .7142  | .6550 13132  | .7556 17493  | .7764 84182  | .2660 67804  |
| .7143  | .6550 88691  | .7555 51988  | .7766 10793  | .2661 45459  |
| .7144  | .6551 64243  | .7554 86476  | .7767 37411  | .2662 23127  |
| 0.7145 | 0.6552 39788 | 0.7554 20956 | 0.7768 64038 | 1.2663 00807 |
| .7146  | .6553 15327  | .7553 55428  | .7769 90672  | .2663 78499  |
| .7147  | .6553 90859  | .7552 89892  | .7771 17313  | .2664 56205  |
| .7148  | .6554 66385  | .7552 24350  | .7772 43963  | .2665 33923  |
| .7149  | .6555 41904  | .7551 58799  | .7773 70620  | .2666 11654  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.7150 | 0.6556 17417 | 0.7550 93241 | 0.7774 97285 | 1.2666 00397 |
| .7151  | .6556 92923  | .7550 27676  | .7776 23958  | .2667 67153  |
| .7152  | .6557 68422  | .7549 62103  | .7777 50639  | .2668 44922  |
| .7153  | .6558 43915  | .7548 96522  | .7778 77327  | .2669 22703  |
| .7154  | .6559 19402  | .7548 30934  | .7780 04023  | .2670 00497  |
| 0.7155 | 0.6559 94881 | 0.7547 65338 | 0.7781 30727 | 1.2670 78304 |
| .7156  | .6560 70355  | .7546 99735  | .7782 57439  | .2671 56123  |
| .7157  | .6561 45821  | .7546 34124  | .7783 84158  | .2672 33956  |
| .7158  | .6562 21281  | .7545 68506  | .7785 10886  | .2673 11800  |
| .7159  | .6562 96735  | .7545 02880  | .7786 37621  | .2673 89658  |
| 0.7160 | 0.6563 72182 | 0.7544 37246 | 0.7787 64364 | 1.2674 67528 |
| .7161  | .6564 47622  | .7543 71605  | .7788 91114  | .2675 45411  |
| .7162  | .6565 23056  | .7543 05957  | .7790 17873  | .2676 23306  |
| .7163  | .6565 98484  | .7542 40301  | .7791 44639  | .2677 01214  |
| .7164  | .6566 73904  | .7541 74637  | .7792 71413  | .2677 79135  |
| 0.7165 | 0.6567 49319 | 0.7541 08966 | 0.7793 98195 | 1.2678 57068 |
| .7166  | .6568 24726  | .7540 43287  | .7795 24934  | .2679 35015  |
| .7167  | .6569 00127  | .7539 77601  | .7796 51782  | .2680 12973  |
| .7168  | .6569 75522  | .7539 11907  | .7797 78587  | .2680 90945  |
| .7169  | .6570 50910  | .7538 46206  | .7799 05400  | .2681 68929  |
| 0.7170 | 0.6571 26291 | 0.7537 80497 | 0.7800 32221 | 1.2682 46926 |
| .7171  | .6572 01666  | .7537 14781  | .7801 59049  | .2683 24936  |
| .7172  | .6572 77034  | .7536 49057  | .7802 85886  | .2684 02958  |
| .7173  | .6573 52396  | .7535 83325  | .7804 12730  | .2684 80993  |
| .7174  | .6574 27751  | .7535 17586  | .7805 39582  | .2685 59040  |
| 0.7175 | 0.6575 03099 | 0.7534 51840 | 0.7806 66442 | 1.2686 37101 |
| .7176  | .6575 78441  | .7533 86086  | .7807 93309  | .2687 15174  |
| .7177  | .6576 53776  | .7533 20324  | .7809 20185  | .2687 93259  |
| .7178  | .6577 29105  | .7532 54555  | .7810 47068  | .2688 71358  |
| .7179  | .6578 04427  | .7531 88778  | .7811 73959  | .2689 49469  |
| 0.7180 | 0.6578 79743 | 0.7531 22994 | 0.7813 00858 | 1.2690 27592 |
| .7181  | .6579 55052  | .7530 57202  | .7814 27765  | .2691 05729  |
| .7182  | .6580 30354  | .7529 91403  | .7815 54679  | .2691 83878  |
| .7183  | .6581 05650  | .7529 25596  | .7816 81601  | .2692 62040  |
| .7184  | .6581 80939  | .7528 59782  | .7818 08531  | .2693 40214  |
| 0.7185 | 0.6582 56222 | 0.7527 93960 | 0.7819 35469 | 1.2694 18402 |
| .7186  | .6583 31498  | .7527 28131  | .7820 62415  | .2694 96601  |
| .7187  | .6584 06768  | .7526 62294  | .7821 89369  | .2695 74814  |
| .7188  | .6584 82031  | .7525 96449  | .7823 16330  | .2696 53039  |
| .7189  | .6585 57287  | .7525 30597  | .7824 43299  | .2697 31277  |
| 0.7190 | 0.6586 32537 | 0.7524 64738 | 0.7825 70276 | 1.2698 09528 |
| .7191  | .6587 07780  | .7523 98871  | .7826 97261  | .2698 87791  |
| .7192  | .6587 83016  | .7523 32996  | .7828 24254  | .2699 66067  |
| .7193  | .6588 58246  | .7522 67114  | .7829 51254  | .2700 44356  |
| .7194  | .6589 33470  | .7522 01225  | .7830 78263  | .2701 22658  |
| 0.7195 | 0.6590 08687 | 0.7521 35327 | 0.7832 05279 | 1.2702 00972 |
| .7196  | .6590 83897  | .7520 69423  | .7833 32303  | .2702 79299  |
| .7197  | .6591 59101  | .7520 03511  | .7834 59335  | .2703 57638  |
| .7198  | .6592 34298  | .7519 37591  | .7835 86374  | .2704 35991  |
| .7199  | .6593 09488  | .7518 71664  | .7837 13422  | .2705 14356  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.7200 | 0.6593 84672 | 0.7518 05729 | 0.7838 40477 | 1.2705 92733 |
| .7201  | .6594 59849  | .7517 39787  | .7839 67541  | .2706 71124  |
| .7202  | .6595 35020  | .7516 73837  | .7840 94612  | .2707 49527  |
| .7203  | .6596 10184  | .7516 07880  | .7842 21690  | .2708 27943  |
| .7204  | .6596 85342  | .7515 41915  | .7843 48777  | .2709 06371  |
| 0.7205 | 0.6597 60492 | 0.7514 75943 | 0.7844 75872 | 1.2709 84812 |
| .7206  | .6598 35637  | .7514 09963  | .7846 02974  | .2710 63266  |
| .7207  | .6599 10774  | .7513 43976  | .7847 30084  | .2711 41733  |
| .7208  | .6599 85905  | .7512 77981  | .7848 57202  | .2712 20212  |
| .7209  | .6600 61030  | .7512 11979  | .7849 84328  | .2712 98704  |
| 0.7210 | 0.6601 36148 | 0.7511 45969 | 0.7851 11462 | 1.2713 77209 |
| .7211  | .6602 11259  | .7510 79951  | .7852 38504  | .2714 55727  |
| .7212  | .6602 86364  | .7510 13926  | .7853 65753  | .2715 34257  |
| .7213  | .6603 61462  | .7509 47894  | .7854 92911  | .2716 12800  |
| .7214  | .6604 36553  | .7508 81854  | .7856 20076  | .2716 91356  |
| 0.7215 | 0.6605 11638 | 0.7508 15807 | 0.7857 47249 | 1.2717 69924 |
| .7216  | .6605 86717  | .7507 49752  | .7858 74430  | .2718 48505  |
| .7217  | .6606 61788  | .7506 83639  | .7860 01619  | .2719 27099  |
| .7218  | .6607 36853  | .7506 17619  | .7861 28815  | .2720 05705  |
| .7219  | .6608 11912  | .7505 51542  | .7862 56020  | .2720 84325  |
| 0.7220 | 0.6608 86964 | 0.7504 85457 | 0.7863 83232 | 1.2721 62956 |
| .7221  | .6609 62009  | .7504 19365  | .7865 10452  | .2722 41601  |
| .7222  | .6610 37048  | .7503 53265  | .7866 37681  | .2723 20259  |
| .7223  | .6611 12080  | .7502 87157  | .7867 64916  | .2723 98929  |
| .7224  | .6611 87105  | .7502 21042  | .7868 92180  | .2724 77612  |
| 0.7225 | 0.6612 62124 | 0.7501 54920 | 0.7870 19412 | 1.2725 56307 |
| .7226  | .6613 37136  | .7500 88790  | .7871 46672  | .2726 35015  |
| .7227  | .6614 12142  | .7500 22652  | .7872 73939  | .2727 13736  |
| .7228  | .6614 87140  | .7499 56507  | .7874 01214  | .2727 92470  |
| .7229  | .6615 62133  | .7498 90355  | .7875 28497  | .2728 71217  |
| 0.7230 | 0.6616 37119 | 0.7498 24195 | 0.7876 55789 | 1.2729 49976 |
| .7231  | .6617 12098  | .7497 58028  | .7877 83087  | .2730 28748  |
| .7232  | .6617 87070  | .7496 91853  | .7879 10394  | .2731 07533  |
| .7233  | .6618 62036  | .7496 25670  | .7880 37709  | .2731 86330  |
| .7234  | .6619 36995  | .7495 59480  | .7881 65032  | .2732 65140  |
| 0.7235 | 0.6620 11948 | 0.7494 93283 | 0.7882 92362 | 1.2733 43963 |
| .7236  | .6620 86894  | .7494 27078  | .7884 19700  | .2734 22799  |
| .7237  | .6621 61833  | .7493 60865  | .7885 47047  | .2735 01647  |
| .7238  | .6622 36766  | .7492 94645  | .7886 74401  | .2735 80508  |
| .7239  | .6623 11692  | .7492 28418  | .7888 01763  | .2736 59382  |
| 0.7240 | 0.6623 86612 | 0.7491 62183 | 0.7889 29133 | 1.2737 38268 |
| .7241  | .6624 61525  | .7490 95941  | .7890 56510  | .2738 17168  |
| .7242  | .6625 36431  | .7490 29691  | .7891 83896  | .2738 96080  |
| .7243  | .6626 11331  | .7489 63433  | .7893 11290  | .2739 75004  |
| .7244  | .6626 86224  | .7488 97168  | .7894 38691  | .2740 53942  |
| 0.7245 | 0.6627 61110 | 0.7488 30896 | 0.7895 66100 | 1.2741 32892 |
| .7246  | .6628 35990  | .7487 64616  | .7896 93518  | .2742 11855  |
| .7247  | .6629 10863  | .7486 98329  | .7898 20943  | .2742 90831  |
| .7248  | .6629 85730  | .7486 32034  | .7899 48376  | .2743 69819  |
| .7249  | .6630 60589  | .7485 65732  | .7900 75817  | .2744 48821  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.7250 | 0.6631 35443 | 0.7484 99422 | 0.7902 05266 | 1.2745 27834 |
| .7251  | .6632 10289  | .7484 33105  | .7903 50722  | .2746 08861  |
| .7252  | .6632 85129  | .7483 66780  | .7904 58187  | .2746 85901  |
| .7253  | .6633 59963  | .7483 00448  | .7905 35659  | .2747 84953  |
| .7254  | .6634 34789  | .7482 34103  | .7907 13140  | .2748 44018  |
| 0.7255 | 0.6635 09609 | 0.7481 67761 | 0.7908 40621 | 1.2749 23095 |
| .7256  | .6635 84423  | .7481 01406  | .7909 68124  | .2750 02186  |
| .7257  | .6636 59230  | .7480 35044  | .7910 95629  | .2750 81289  |
| .7258  | .6637 34030  | .7479 68674  | .7912 23141  | .2751 60405  |
| .7259  | .6638 08823  | .7479 02297  | .7913 50601  | .2752 39634  |
| 0.7260 | 0.6638 83610 | 0.7478 35912 | 0.7914 78189 | 1.2753 18675 |
| .7261  | .6639 58391  | .7477 69520  | .7916 05724  | .2753 97829  |
| .7262  | .6640 33164  | .7477 03121  | .7917 33268  | .2754 76996  |
| .7263  | .6641 07931  | .7476 36714  | .7918 60820  | .2755 56176  |
| .7264  | .6641 82692  | .7475 70299  | .7919 88370  | .2756 35368  |
| 0.7265 | 0.6642 57445 | 0.7475 03877 | 0.7921 15947 | 1.2757 14574 |
| .7266  | .6643 32192  | .7474 37448  | .7922 43522  | .2757 93792  |
| .7267  | .6644 06933  | .7473 71011  | .7923 71106  | .2758 73022  |
| .7268  | .6644 81667  | .7473 04566  | .7924 98697  | .2759 52266  |
| .7269  | .6645 56394  | .7472 38114  | .7926 26296  | .2760 31522  |
| 0.7270 | 0.6646 31114 | 0.7471 71655 | 0.7927 53903 | 1.2761 10791 |
| .7271  | .6647 05828  | .7471 05188  | .7928 81518  | .2761 90073  |
| .7272  | .6647 80535  | .7470 38714  | .7930 09141  | .2762 69367  |
| .7273  | .6648 55236  | .7469 72232  | .7931 36772  | .2763 48675  |
| .7274  | .6649 29930  | .7469 05743  | .7932 64411  | .2764 27995  |
| 0.7275 | 0.6650 04617 | 0.7468 39246 | 0.7933 92058 | 1.2765 07328 |
| .7276  | .6650 79298  | .7467 72742  | .7935 19712  | .2765 86673  |
| .7277  | .6651 53972  | .7467 06230  | .7936 47375  | .2766 66032  |
| .7278  | .6652 28639  | .7466 39711  | .7937 75040  | .2767 45403  |
| .7279  | .6653 03299  | .7466 73184  | .7939 02724  | .2768 24787  |
| 0.7280 | 0.6653 77953 | 0.7465 06650 | 0.7940 30411 | 1.2769 04183 |
| .7281  | .6654 52601  | .7464 40109  | .7941 58105  | .2769 83593  |
| .7282  | .6655 27241  | .7463 73560  | .7942 85807  | .2770 63015  |
| .7283  | .6656 01876  | .7463 07003  | .7944 13518  | .2771 42450  |
| .7284  | .6656 76503  | .7462 40439  | .7945 41236  | .2772 21898  |
| 0.7285 | 0.6657 51124 | 0.7461 73868 | 0.7946 68962 | 1.2773 01358 |
| .7286  | .6658 25738  | .7461 07289  | .7947 96696  | .2773 80831  |
| .7287  | .6659 00345  | .7460 40703  | .7949 24438  | .2774 60317  |
| .7288  | .6659 74946  | .7459 74109  | .7950 52188  | .2775 39816  |
| .7289  | .6660 49540  | .7459 07508  | .7951 79946  | .2776 19328  |
| 0.7290 | 0.6661 24127 | 0.7458 40899 | 0.7953 07712 | 1.2776 98852 |
| .7291  | .6661 98708  | .7457 74283  | .7954 35486  | .2777 78389  |
| .7292  | .6662 73282  | .7457 07660  | .7955 63268  | .2778 57939  |
| .7293  | .6663 47850  | .7456 41028  | .7956 91058  | .2779 37502  |
| .7294  | .6664 22410  | .7455 74390  | .7958 18855  | .2780 17077  |
| 0.7295 | 0.6664 96964 | 0.7455 07744 | 0.7959 46661 | 1.2780 96606 |
| .7296  | .6665 71512  | .7454 41091  | .7960 74475  | .2781 76267  |
| .7297  | .6666 46053  | .7453 74430  | .7962 02296  | .2782 55881  |
| .7298  | .6667 20587  | .7453 07761  | .7963 30126  | .2783 35507  |
| .7299  | .6667 95114  | .7452 41086  | .7964 57963  | .2784 15147  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.7300 | 0.6668 69635 | 0.7451 74402 | 0.7965 85809 | 1.2784 94799 |
| .7301  | .6669 44149  | .7451 07712  | .7967 13662  | .2785 74464  |
| .7302  | .6670 18657  | .7450 41014  | .7968 41524  | .2786 54142  |
| .7303  | .6670 93157  | .7449 74308  | .7969 69393  | .2787 33832  |
| .7304  | .6671 67651  | .7449 07595  | .7970 97270  | .2788 13535  |
| 0.7305 | 0.6672 42139 | 0.7448 40874 | 0.7972 25156 | 1.2788 93252 |
| .7306  | .6673 16620  | .7447 74146  | .7973 53049  | .2789 72981  |
| .7307  | .6673 91094  | .7447 07411  | .7974 80950  | .2790 52722  |
| .7308  | .6674 65561  | .7446 40668  | .7976 08860  | .2791 32477  |
| .7309  | .6675 40022  | .7445 73918  | .7977 36777  | .2792 12244  |
| 0.7310 | 0.6676 14476 | 0.7445 07160 | 0.7978 64702 | 1.2792 92024 |
| .7311  | .6676 88923  | .7444 40395  | .7979 92635  | .2793 71817  |
| .7312  | .6677 63364  | .7443 73622  | .7981 20576  | .2794 51623  |
| .7313  | .6678 37798  | .7443 06842  | .7982 48526  | .2795 31441  |
| .7314  | .6679 12225  | .7442 40055  | .7983 76483  | .2796 11272  |
| 0.7315 | 0.6679 86646 | 0.7441 73260 | 0.7985 04448 | 1.2796 91116 |
| .7316  | .6680 61060  | .7441 06458  | .7986 32421  | .2797 70973  |
| .7317  | .6681 35467  | .7440 39648  | .7987 60402  | .2798 50843  |
| .7318  | .6682 09868  | .7439 72830  | .7988 88391  | .2799 30725  |
| .7319  | .6682 84262  | .7439 06006  | .7990 16388  | .2800 10621  |
| 0.7320 | 0.6683 58649 | 0.7438 39174 | 0.7991 44393 | 1.2800 90529 |
| .7321  | .6684 33030  | .7437 72334  | .7992 72406  | .2801 70449  |
| .7322  | .6685 07404  | .7437 05487  | .7994 00427  | .2802 50383  |
| .7323  | .6685 81771  | .7436 38633  | .7995 28456  | .2803 30329  |
| .7324  | .6686 56131  | .7435 71771  | .7996 56493  | .2804 10289  |
| 0.7325 | 0.6687 30485 | 0.7435 04901 | 0.7997 84538 | 1.2804 90261 |
| .7326  | .6688 04832  | .7434 38025  | .7999 12591  | .2805 70246  |
| .7327  | .6688 79173  | .7433 71140  | .8000 40652  | .2806 50243  |
| .7328  | .6689 53506  | .7433 04249  | .8001 68722  | .2807 30254  |
| .7329  | .6690 27834  | .7432 37350  | .8002 96799  | .2808 10277  |
| 0.7330 | 0.6691 02154 | 0.7431 70443 | 0.8004 24884 | 1.2808 90313 |
| .7331  | .6691 76468  | .7431 03529  | .8005 52977  | .2809 70362  |
| .7332  | .6692 50775  | .7430 36608  | .8006 81078  | .2810 50424  |
| .7333  | .6693 25075  | .7429 69679  | .8008 09187  | .2811 30498  |
| .7334  | .6693 99369  | .7429 02743  | .8009 37304  | .2812 10586  |
| 0.7335 | 0.6694 73656 | 0.7428 35799 | 0.8010 65429 | 1.2812 90686 |
| .7336  | .6695 47936  | .7427 68848  | .8011 93562  | .2813 70799  |
| .7337  | .6696 22209  | .7427 01890  | .8013 21703  | .2814 50924  |
| .7338  | .6696 96476  | .7426 34924  | .8014 49852  | .2815 31063  |
| .7339  | .6697 70736  | .7425 67950  | .8015 78009  | .2816 11214  |
| 0.7340 | 0.6698 44990 | 0.7425 00970 | 0.8017 06174 | 1.2816 91379 |
| .7341  | .6699 19236  | .7424 33981  | .8018 34347  | .2817 71556  |
| .7342  | .6699 93477  | .7423 66986  | .8019 62529  | .2818 51745  |
| .7343  | .6700 67710  | .7422 99983  | .8020 90718  | .2819 31948  |
| .7344  | .6701 41937  | .7422 32972  | .8022 18915  | .2820 12164  |
| 0.7345 | 0.6702 16156 | 0.7421 65954 | 0.8023 47120 | 1.2820 92392 |
| .7346  | .6702 90370  | .7420 98929  | .8024 75333  | .2821 72633  |
| .7347  | .6703 64576  | .7420 31896  | .8026 03555  | .2822 52887  |
| .7348  | .6704 38776  | .7419 64856  | .8027 31784  | .2823 33154  |
| .7349  | .6705 12969  | .7418 97808  | .8028 60021  | .2824 13433  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.7350 | 0.6705 87156 | 0.7418 30753 | 0.8029 68267 | 1.2824 93726 |
| .7351  | .6706 61335  | .7417 63691  | .8031 16420  | .2825 74031  |
| .7352  | .6707 35508  | .7416 96621  | .8032 44782  | .2826 54349  |
| .7353  | .6708 09675  | .7416 29544  | .8033 73051  | .2827 34680  |
| .7354  | .6708 83834  | .7415 62459  | .8035 01329  | .2828 15024  |
| 0.7355 | 0.6709 57987 | 0.7414 95367 | 0.8036 29614 | 1.2828 95380 |
| .7356  | .6710 32135  | .7414 28268  | .8037 57908  | .2829 75750  |
| .7357  | .6711 06273  | .7413 61161  | .8038 86209  | .2830 56132  |
| .7358  | .6711 80406  | .7412 94046  | .8040 14519  | .2831 36527  |
| .7359  | .6712 54532  | .7412 26925  | .8041 42836  | .2832 16935  |
| 0.7360 | 0.6713 28651 | 0.7411 59795 | 0.8042 71132 | 1.2832 97355 |
| .7361  | .6714 02764  | .7410 92659  | .8043 99496  | .2833 77789  |
| .7362  | .6714 76870  | .7410 25515  | .8045 27838  | .2834 58235  |
| .7363  | .6715 50969  | .7409 58363  | .8046 56138  | .2835 38694  |
| .7364  | .6716 25061  | .7408 91205  | .8047 84545  | .2836 19167  |
| 0.7365 | 0.6716 99147 | 0.7408 24038 | 0.8049 12911 | 1.2836 99651 |
| .7366  | .6717 73226  | .7407 56865  | .8050 41255  | .2837 80149  |
| .7367  | .6718 47298  | .7406 89684  | .8051 69667  | .2838 60660  |
| .7368  | .6719 21364  | .7406 22495  | .8052 98058  | .2839 41183  |
| .7369  | .6719 95423  | .7405 55300  | .8054 26456  | .2840 21719  |
| 0.7370 | 0.6720 69475 | 0.7404 88096 | 0.8055 54832 | 1.2841 02268 |
| .7371  | .6721 43520  | .7404 20886  | .8056 83276  | .2841 82830  |
| .7372  | .6722 17559  | .7403 53668  | .8058 11698  | .2842 63405  |
| .7373  | .6722 91591  | .7402 86442  | .8059 40129  | .2843 43993  |
| .7374  | .6723 65616  | .7402 19209  | .8060 68587  | .2844 24593  |
| 0.7375 | 0.6724 39635 | 0.7401 51969 | 0.8061 97014 | 1.2845 05206 |
| .7376  | .6725 13647  | .7400 84721  | .8063 25468  | .2845 85832  |
| .7377  | .6725 87652  | .7400 17466  | .8064 53931  | .2846 66471  |
| .7378  | .6726 61650  | .7399 50204  | .8065 82402  | .2847 47123  |
| .7379  | .6727 35642  | .7398 82934  | .8067 10880  | .2848 27788  |
| 0.7380 | 0.6728 09627 | 0.7398 15657 | 0.8068 39367 | 1.2849 08465 |
| .7381  | .6728 83605  | .7397 48372  | .8069 67862  | .2849 89156  |
| .7382  | .6729 57577  | .7396 81080  | .8070 96365  | .2850 69859  |
| .7383  | .6730 31541  | .7396 13781  | .8072 24876  | .2851 50575  |
| .7384  | .6731 05499  | .7395 46474  | .8073 53395  | .2852 31304  |
| 0.7385 | 0.6731 79451 | 0.7394 79159 | 0.8074 81922 | 1.2853 12046 |
| .7386  | .6732 53395  | .7394 11838  | .8076 10458  | .2853 92800  |
| .7387  | .6733 27333  | .7393 44509  | .8077 39001  | .2854 73568  |
| .7388  | .6734 01264  | .7392 77172  | .8078 67552  | .2855 54348  |
| .7389  | .6734 75188  | .7392 09829  | .8079 96112  | .2856 35141  |
| 0.7390 | 0.6735 49106 | 0.7391 42477 | 0.8081 24679 | 1.2857 15947 |
| .7391  | .6736 23017  | .7390 75119  | .8082 53255  | .2857 96766  |
| .7392  | .6736 96921  | .7390 07753  | .8083 81839  | .2858 77598  |
| .7393  | .6737 70818  | .7389 40379  | .8085 10430  | .2859 58443  |
| .7394  | .6738 44709  | .7388 72999  | .8086 39030  | .2860 39300  |
| 0.7395 | 0.6739 18593 | 0.7388 05610 | 0.8087 67638 | 1.2861 20170 |
| .7396  | .6739 92470  | .7387 38215  | .8088 96254  | .2862 01054  |
| .7397  | .6740 66341  | .7386 70812  | .8090 24878  | .2862 81950  |
| .7398  | .6741 40204  | .7386 03402  | .8091 53511  | .2863 62859  |
| .7399  | .6742 14061  | .7385 35984  | .8092 82151  | .2864 43780  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.7400 | 0.6742 87912 | 0.7354 68559 | 0.8094 10792 | 1.2865 24715 |
| .7401  | .6743 61755  | .7354 01128  | .8095 38453  | .2866 05633  |
| .7402  | .6744 35592  | .7353 33393  | .8096 68121  | .2866 86623  |
| .7403  | .6745 09422  | .7352 66239  | .8097 97735  | .2867 67506  |
| .7404  | .6745 83245  | .7351 98734  | .8098 28474  | .2868 48382  |
| 0.7405 | 0.6746 57062 | 0.7351 31322 | 0.8100 54163 | 1.2869 29581 |
| .7406  | .6747 30871  | .7350 63953  | .8101 32960  | .2870 10633  |
| .7407  | .6748 04674  | .7349 96373  | .8103 11565  | .2870 91618  |
| .7408  | .6748 78471  | .7349 28892  | .8104 40276  | .2871 72555  |
| .7409  | .6749 52260  | .7348 61401  | .8105 69000  | .2872 53708  |
| 0.7410 | 0.6750 26043 | 0.7347 93902 | 0.8106 97722 | 1.2873 34769 |
| .7411  | .6750 99819  | .7347 26395  | .8108 26437  | .2874 15846  |
| .7412  | .6751 73583  | .7346 58882  | .8109 55212  | .2874 96934  |
| .7413  | .6752 47351  | .7345 91361  | .8110 83963  | .2875 78036  |
| .7414  | .6753 21106  | .7345 23832  | .8112 12729  | .2876 59151  |
| 0.7415 | 0.6753 94855 | 0.7344 56293 | 0.8113 41493 | 1.2877 40273 |
| .7416  | .6754 68598  | .7343 88753  | .8114 70276  | .2878 21420  |
| .7417  | .6755 42333  | .7343 21205  | .8115 99062  | .2879 02573  |
| .7418  | .6756 16062  | .7342 53645  | .8117 27956  | .2879 83739  |
| .7419  | .6756 89784  | .7341 86030  | .8118 56859  | .2880 64919  |
| 0.7420 | 0.6757 63499 | 0.7341 18507 | 0.8119 85469 | 1.2881 46111 |
| .7421  | .6758 37206  | .7340 50927  | .8121 14259  | .2882 27316  |
| .7422  | .6759 10909  | .7339 83339  | .8122 43116  | .2883 08534  |
| .7423  | .6759 84604  | .7339 15745  | .8123 71950  | .2883 89764  |
| .7424  | .6760 58293  | .7338 48143  | .8125 00793  | .2884 71008  |
| 0.7425 | 0.6761 31974 | 0.7337 80533 | 0.8126 29644 | 1.2885 52236 |
| .7426  | .6762 05649  | .7337 12916  | .8127 58503  | .2886 33534  |
| .7427  | .6762 79317  | .7336 45292  | .8129 87371  | .2887 14816  |
| .7428  | .6763 52978  | .7335 77660  | .8130 16246  | .2887 96111  |
| .7429  | .6764 26632  | .7335 10021  | .8131 45130  | .2888 77419  |
| 0.7430 | 0.6765 00280 | 0.7334 42375 | 0.8132 74022 | 1.2889 58740 |
| .7431  | .6765 73921  | .7333 74721  | .8134 02922  | .2890 40074  |
| .7432  | .6766 47555  | .7333 07060  | .8135 31830  | .2891 21421  |
| .7433  | .6767 21182  | .7332 39392  | .8136 60746  | .2892 02781  |
| .7434  | .6767 94803  | .7331 71716  | .8137 89670  | .2892 84153  |
| 0.7435 | 0.6768 68416 | 0.7331 04033 | 0.8139 18605 | 1.2893 65539 |
| .7436  | .6769 42023  | .7330 36342  | .8140 47543  | .2894 46937  |
| .7437  | .6770 15624  | .7329 68644  | .8141 76492  | .2895 28348  |
| .7438  | .6770 89217  | .7329 00939  | .8143 05449  | .2896 09772  |
| .7439  | .6771 62804  | .7328 33226  | .8144 34414  | .2896 91209  |
| 0.7440 | 0.6772 36384 | 0.7327 65507 | 0.8145 63387 | 1.2897 72659 |
| .7441  | .6773 09957  | .7326 97779  | .8146 92369  | .2898 54122  |
| .7442  | .6773 83523  | .7326 30045  | .8148 21358  | .2899 35599  |
| .7443  | .6774 57083  | .7325 62303  | .8149 50356  | .2900 17086  |
| .7444  | .6775 30636  | .7324 94553  | .8150 79362  | .2900 98588  |
| 0.7445 | 0.6776 04182 | 0.7324 26796 | 0.8152 08376 | 1.2901 80102 |
| .7446  | .6776 77721  | .7323 59032  | .8153 37393  | .2902 61629  |
| .7447  | .6777 51254  | .7322 91261  | .8154 66423  | .2903 43189  |
| .7448  | .6778 24779  | .7322 23482  | .8155 95466  | .2904 24723  |
| .7449  | .6778 98298  | .7321 55696  | .8157 24513  | .2905 06299  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.7450 | 0.6779 71810 | 0.7350 87902 | 0.8158 53508 | 1.2906 87907 |
| .7451  | .6780 45316  | .7350 20102  | .8159 82630  | .2906 88459  |
| .7452  | .6781 18814  | .7349 52293  | .8161 11701  | .2907 89004  |
| .7453  | .6781 92306  | .7348 84478  | .8162 40781  | .2908 89552  |
| .7454  | .6782 65791  | .7348 16655  | .8163 69903  | .2909 90102  |
| 0.7455 | 0.6783 39270 | 0.7347 48825 | 0.8164 99063 | 1.2909 90656 |
| .7456  | .6784 12741  | .7346 80987  | .8166 28207  | .2910 91212  |
| .7457  | .6784 86206  | .7346 13142  | .8167 57179  | .2911 91761  |
| .7458  | .6785 59664  | .7345 45290  | .8168 86203  | .2912 92313  |
| .7459  | .6786 33115  | .7344 77430  | .8170 15427  | .2913 92868  |
| 0.7460 | 0.6787 06559 | 0.7344 09563 | 0.8171 44664 | 1.2914 93426 |
| .7461  | .6787 79997  | .7343 41689  | .8172 73700  | .2914 93987  |
| .7462  | .6788 53428  | .7342 73807  | .8174 02901  | .2915 94551  |
| .7463  | .6789 26852  | .7342 05918  | .8175 32022  | .2916 95118  |
| .7464  | .6790 00269  | .7341 38022  | .8176 61191  | .2917 95688  |
| 0.7465 | 0.6790 73679 | 0.7340 70118 | 0.8177 90338 | 1.2918 96260 |
| .7466  | .6791 47083  | .7340 02207  | .8179 19543  | .2918 96836  |
| .7467  | .6792 20480  | .7339 34289  | .8180 48747  | .2919 97414  |
| .7468  | .6792 93870  | .7338 66363  | .8181 77940  | .2920 97995  |
| .7469  | .6793 67253  | .7337 98430  | .8182 07189  | .2921 98580  |
| 0.7470 | 0.6794 40629 | 0.7337 30489 | 0.8184 36377 | 1.2922 99157 |
| .7471  | .6795 13999  | .7336 62542  | .8185 65595  | .2923 99737  |
| .7472  | .6795 87362  | .7335 94587  | .8186 94837  | .2924 00320  |
| .7473  | .6796 60718  | .7335 26624  | .8188 24080  | .2924 00904  |
| .7474  | .6797 34067  | .7334 58655  | .8189 53331  | .2925 01491  |
| 0.7475 | 0.6798 07410 | 0.7333 90677 | 0.8190 82599 | 1.2926 02080 |
| .7476  | .6798 80745  | .7333 22693  | .8192 11867  | .2927 02671  |
| .7477  | .6799 54074  | .7332 54701  | .8193 41133  | .2927 03264  |
| .7478  | .6800 27396  | .7331 86702  | .8194 70416  | .2928 03859  |
| .7479  | .6801 00712  | .7331 18696  | .8195 99703  | .2929 04456  |
| 0.7480 | 0.6801 74020 | 0.7330 50682 | 0.8197 29008 | 1.2930 05055 |
| .7481  | .6802 47322  | .7329 82661  | .8198 58316  | .2931 05656  |
| .7482  | .6803 20617  | .7329 14633  | .8199 87635  | .2932 06259  |
| .7483  | .6803 93905  | .7328 46597  | .8201 16958  | .2932 06864  |
| .7484  | .6804 67186  | .7327 78554  | .8202 46280  | .2933 07471  |
| 0.7485 | 0.6805 40460 | 0.7327 10503 | 0.8203 75631 | 1.2934 08080 |
| .7486  | .6806 13728  | .7326 42446  | .8205 04981  | .2935 08691  |
| .7487  | .6806 86989  | .7325 74381  | .8206 34332  | .2936 09304  |
| .7488  | .6807 60243  | .7325 06308  | .8207 63704  | .2936 09919  |
| .7489  | .6808 33490  | .7324 38229  | .8208 93076  | .2937 01536  |
| 0.7490 | 0.6809 06730 | 0.7323 70142 | 0.8210 22460 | 1.2938 02155 |
| .7491  | .6809 79964  | .7323 02047  | .8211 51856  | .2939 02776  |
| .7492  | .6810 53191  | .7322 33946  | .8212 81243  | .2940 03399  |
| .7493  | .6811 26411  | .7321 65837  | .8214 10635  | .2941 04024  |
| .7494  | .6811 99624  | .7320 97720  | .8215 40070  | .2941 04651  |
| 0.7495 | 0.6812 72830 | 0.7320 29597 | 0.8216 69493 | 1.2942 05280 |
| .7496  | .6813 46030  | .7319 61466  | .8217 98924  | .2943 05911  |
| .7497  | .6814 19223  | .7318 93328  | .8219 28364  | .2944 06544  |
| .7498  | .6814 92409  | .7318 25182  | .8220 57812  | .2945 07179  |
| .7499  | .6815 65588  | .7317 57029  | .8221 87268  | .2946 07816  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 0.7500 | 0.6816 38760 | 0.7316 88869 | 0.8223 16732 | 1.2946 83285 |
| .7501  | .6817 11926  | .7316 20701  | .8224 46204  | .2947 65523  |
| .7502  | .6817 85084  | .7315 52526  | .8225 75685  | .2948 47774  |
| .7503  | .6818 58236  | .7314 84344  | .8227 05174  | .2949 30038  |
| .7504  | .6819 31381  | .7314 16155  | .8228 34671  | .2950 12315  |
| 0.7505 | 0.6820 04519 | 0.7313 47958 | 0.8229 64176 | 1.2950 94605 |
| .7506  | .6820 77651  | .7312 79754  | .8230 93690  | .2951 76908  |
| .7507  | .6821 50775  | .7312 11543  | .8232 23212  | .2952 59224  |
| .7508  | .6822 23893  | .7311 43324  | .8233 52742  | .2953 41552  |
| .7509  | .6822 97004  | .7310 75098  | .8234 82280  | .2954 23894  |
| 0.7510 | 0.6823 70108 | 0.7310 06864 | 0.8236 11827 | 1.2955 06249 |
| .7511  | .6824 43205  | .7309 38624  | .8237 41381  | .2955 88617  |
| .7512  | .6825 16296  | .7308 70376  | .8238 70944  | .2956 70997  |
| .7513  | .6825 89379  | .7308 02120  | .8240 00516  | .2957 53391  |
| .7514  | .6826 62456  | .7307 33858  | .8241 30095  | .2958 35797  |
| 0.7515 | 0.6827 35526 | 0.7306 65588 | 0.8242 59683 | 1.2959 18217 |
| .7516  | .6828 08589  | .7305 97311  | .8243 89279  | .2960 00649  |
| .7517  | .6828 81646  | .7305 29026  | .8245 18883  | .2960 83095  |
| .7518  | .6829 54695  | .7304 60734  | .8246 48495  | .2961 65553  |
| .7519  | .6830 27738  | .7303 92435  | .8247 78116  | .2962 48024  |
| 0.7520 | 0.6831 00774 | 0.7303 24129 | 0.8249 07745 | 1.2963 30509 |
| .7521  | .6831 73803  | .7302 55815  | .8250 37362  | .2964 13006  |
| .7522  | .6832 46825  | .7301 87494  | .8251 67027  | .2964 95516  |
| .7523  | .6833 19840  | .7301 19166  | .8252 96681  | .2965 78039  |
| .7524  | .6833 92849  | .7300 50830  | .8254 26343  | .2966 60575  |
| 0.7525 | 0.6834 65850 | 0.7299 82487 | 0.8255 56013 | 1.2967 43125 |
| .7526  | .6835 38845  | .7299 14137  | .8256 85692  | .2968 25687  |
| .7527  | .6836 11833  | .7298 45779  | .8258 15378  | .2969 08262  |
| .7528  | .6836 84814  | .7297 77415  | .8259 45073  | .2969 90850  |
| .7529  | .6837 57788  | .7297 09042  | .8260 74777  | .2970 73451  |
| 0.7530 | 0.6838 30756 | 0.7296 40663 | 0.8262 04488 | 1.2971 56065 |
| .7531  | .6839 03717  | .7295 72276  | .8263 34208  | .2972 38692  |
| .7532  | .6839 76670  | .7295 03882  | .8264 63936  | .2973 21331  |
| .7533  | .6840 49617  | .7294 35481  | .8265 93672  | .2974 03984  |
| .7534  | .6841 22558  | .7293 67072  | .8267 23417  | .2974 86650  |
| 0.7535 | 0.6841 95491 | 0.7292 98656 | 0.8268 53169 | 1.2975 69329 |
| .7536  | .6842 68417  | .7292 30233  | .8269 82930  | .2976 52021  |
| .7537  | .6843 41337  | .7291 61803  | .8271 12700  | .2977 34726  |
| .7538  | .6844 14250  | .7290 93365  | .8272 42477  | .2978 17443  |
| .7539  | .6844 87156  | .7290 24920  | .8273 72263  | .2979 00174  |
| 0.7540 | 0.6845 60055 | 0.7289 56468 | 0.8275 02057 | 1.2979 82918 |
| .7541  | .6846 32947  | .7288 88008  | .8276 31860  | .2980 65675  |
| .7542  | .6847 05832  | .7288 19541  | .8277 61671  | .2981 48444  |
| .7543  | .6847 78711  | .7287 51067  | .8278 91490  | .2982 31227  |
| .7544  | .6848 51582  | .7286 82585  | .8280 21317  | .2983 14023  |
| 0.7545 | 0.6849 24447 | 0.7286 14096 | 0.8281 51152 | 1.2983 96831 |
| .7546  | .6849 97305  | .7285 45600  | .8282 80996  | .2984 79653  |
| .7547  | .6850 70156  | .7284 77097  | .8284 10848  | .2985 62487  |
| .7548  | .6851 43001  | .7284 08586  | .8285 40709  | .2986 45335  |
| .7549  | .6852 15838  | .7283 40068  | .8286 70577  | .2987 28195  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.7550 | 0.6852 88669 | 0.7282 71543 | 0.8285 80541 | 1.2985 11069 |
| .7551  | .6853 61492  | .7282 03011  | .8289 30540  | .12985 93956 |
| .7552  | .6854 34309  | .7281 34471  | .8290 60332  | .12989 76855 |
| .7553  | .6855 07119  | .7280 65924  | .8291 90135  | .12990 59768 |
| .7554  | .6855 79922  | .7279 97369  | .8293 20945  | .12991 42693 |
| 0.7555 | 0.6856 52719 | 0.7279 28808 | 0.8294 49963 | 1.2992 25632 |
| .7556  | .6857 25508  | .7278 60239  | .8295 79190  | .12993 08583 |
| .7557  | .6857 98291  | .7277 91663  | .8297 09885  | .12993 91548 |
| .7558  | .6858 71067  | .7277 23079  | .8298 39761  | .12994 74525 |
| .7559  | .6859 43835  | .7276 54489  | .8299 69720  | .12995 57516 |
| 0.7560 | 0.6860 16597 | 0.7275 85890 | 0.8300 99680 | 1.2996 40519 |
| .7561  | .6860 89353  | .7275 17285  | .8302 29648  | .12997 23536 |
| .7562  | .6861 62101  | .7274 48673  | .8303 59621  | .12998 06565 |
| .7563  | .6862 34842  | .7273 80053  | .8304 89610  | .12998 89607 |
| .7564  | .6863 07577  | .7273 11426  | .8306 19603  | .12999 72663 |
| 0.7565 | 0.6863 80305 | 0.7272 42791 | 0.8307 49604 | 1.3000 55731 |
| .7566  | .6864 53025  | .7271 74150  | .8308 79614  | .13001 38813 |
| .7567  | .6865 25739  | .7271 05501  | .8310 09632  | .13002 21907 |
| .7568  | .6865 98447  | .7270 36844  | .8311 39658  | .13003 05015 |
| .7569  | .6866 71147  | .7269 68181  | .8312 69693  | .13003 88135 |
| 0.7570 | 0.6867 43840 | 0.7268 99510 | 0.8313 99736 | 1.3004 71269 |
| .7571  | .6868 16527  | .7268 30832  | .8315 29787  | .13005 54415 |
| .7572  | .6868 89206  | .7267 62147  | .8316 59847  | .13006 37575 |
| .7573  | .6869 61879  | .7266 93454  | .8317 89915  | .13007 20747 |
| .7574  | .6870 34545  | .7266 24755  | .8319 19991  | .13008 03933 |
| 0.7575 | 0.6871 07204 | 0.7265 56047 | 0.8320 50075 | 1.3008 87131 |
| .7576  | .6871 79856  | .7264 87333  | .8321 80161  | .13009 70343 |
| .7577  | .6872 52502  | .7264 18611  | .8323 10269  | .13010 53567 |
| .7578  | .6873 25140  | .7263 49883  | .8324 40379  | .13011 36805 |
| .7579  | .6873 97772  | .7262 81146  | .8325 70497  | .13012 20055 |
| 0.7580 | 0.6874 70396 | 0.7262 12403 | 0.8327 00583 | 1.3013 03319 |
| .7581  | .6875 43014  | .7261 43652  | .8328 30737  | .13013 86595 |
| .7582  | .6876 15625  | .7260 74894  | .8329 60900  | .13014 69825 |
| .7583  | .6876 88229  | .7260 06129  | .8330 91051  | .13015 53188 |
| .7584  | .6877 60826  | .7259 37357  | .8332 21211  | .13016 36503 |
| 0.7585 | 0.6878 33416 | 0.7258 68577 | 0.8333 51379 | 1.3017 19832 |
| .7586  | .6879 06000  | .7257 99790  | .8334 81555  | .13018 03173 |
| .7587  | .6879 78576  | .7257 30996  | .8336 11739  | .13018 86528 |
| .7588  | .6880 51146  | .7256 62194  | .8337 41932  | .13019 69896 |
| .7589  | .6881 23709  | .7255 93386  | .8338 72133  | .13020 53276 |
| 0.7590 | 0.6881 96265 | 0.7255 24570 | 0.8340 02343 | 1.3021 36670 |
| .7591  | .6882 68814  | .7254 55746  | .8341 32561  | .13022 20077 |
| .7592  | .6883 41356  | .7253 86916  | .8342 62787  | .13023 03497 |
| .7593  | .6884 13891  | .7253 18078  | .8343 93021  | .13023 86930 |
| .7594  | .6884 86420  | .7252 49233  | .8345 23264  | .13024 70375 |
| 0.7595 | 0.6885 58941 | 0.7251 80381 | 0.8346 53515 | 1.3025 53834 |
| .7596  | .6886 31456  | .7251 11521  | .8347 83775  | .13026 37306 |
| .7597  | .6887 03963  | .7250 42655  | .8349 14043  | .13027 20791 |
| .7598  | .6887 76464  | .7249 73781  | .8350 44319  | .13028 04289 |
| .7599  | .6888 48958  | .7249 04899  | .8351 74604  | .13028 87800 |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 0.7600 | 0.6889 21445 | 0.7248 36011 | 0.8353 04897 | 1.3029 71324 |
| .7601  | .6889 93925  | .7247 67115  | .8354 35198  | .3030 54861  |
| .7602  | .6890 66399  | .7246 98212  | .8355 65508  | .3031 38411  |
| .7603  | .6891 38865  | .7246 29302  | .8356 95826  | .3032 21974  |
| .7604  | .6892 11324  | .7245 60384  | .8358 26152  | .3033 05550  |
| 0.7605 | 0.6892 83777 | 0.7244 91459 | 0.8359 56487 | 1.3033 89139 |
| .7606  | .6893 56223  | .7244 22527  | .8360 86830  | .3034 72741  |
| .7607  | .6894 28661  | .7243 53588  | .8362 17181  | .3035 56356  |
| .7608  | .6895 01093  | .7242 84642  | .8363 47541  | .3036 39985  |
| .7609  | .6895 73518  | .7242 15688  | .8364 77909  | .3037 23626  |
| 0.7610 | 0.6896 45937 | 0.7241 46727 | 0.8366 08266 | 1.3038 07280 |
| .7611  | .6897 18348  | .7240 77759  | .8367 38671  | .3038 90948  |
| .7612  | .6897 90752  | .7240 08783  | .8368 69064  | .3039 74628  |
| .7613  | .6898 63150  | .7239 39801  | .8369 99466  | .3040 58321  |
| .7614  | .6899 35540  | .7238 70811  | .8371 29876  | .3041 42028  |
| 0.7615 | 0.6900 07924 | 0.7238 01814 | 0.8372 60294 | 1.3042 25747 |
| .7616  | .6900 80300  | .7237 32809  | .8373 90721  | .3043 09480  |
| .7617  | .6901 52670  | .7236 63797  | .8375 21156  | .3043 93226  |
| .7618  | .6902 25033  | .7235 94779  | .8376 51600  | .3044 76984  |
| .7619  | .6902 97389  | .7235 25752  | .8377 82051  | .3045 60756  |
| 0.7620 | 0.6903 69738 | 0.7234 56719 | 0.8379 12512 | 1.3046 44541 |
| .7621  | .6904 42081  | .7233 87679  | .8380 42980  | .3047 28338  |
| .7622  | .6905 14416  | .7233 18631  | .8381 73457  | .3048 12149  |
| .7623  | .6905 86744  | .7232 49576  | .8383 03943  | .3048 95973  |
| .7624  | .6906 59066  | .7231 80513  | .8384 34437  | .3049 79810  |
| 0.7625 | 0.6907 31380 | 0.7231 11444 | 0.8385 64939 | 1.3050 63660 |
| .7626  | .6908 03688  | .7230 42367  | .8386 95449  | .3051 47523  |
| .7627  | .6908 75989  | .7229 73283  | .8388 25968  | .3052 31399  |
| .7628  | .6909 48283  | .7229 04192  | .8389 56496  | .3053 15288  |
| .7629  | .6910 20570  | .7228 35093  | .8390 87031  | .3053 99190  |
| 0.7630 | 0.6910 92850 | 0.7227 65988 | 0.8392 17575 | 1.3054 83106 |
| .7631  | .6911 65123  | .7226 96875  | .8393 48128  | .3055 67034  |
| .7632  | .6912 37389  | .7226 27755  | .8394 78689  | .3056 50975  |
| .7633  | .6913 09648  | .7225 58627  | .8396 09258  | .3057 34930  |
| .7634  | .6913 81901  | .7224 89493  | .8397 39836  | .3058 18897  |
| 0.7635 | 0.6914 54146 | 0.7224 20351 | 0.8398 70422 | 1.3059 02878 |
| .7636  | .6915 26385  | .7223 51202  | .8400 01016  | .3059 86871  |
| .7637  | .6915 98617  | .7222 82046  | .8401 31619  | .3060 70878  |
| .7638  | .6916 70841  | .7222 12882  | .8402 62231  | .3061 54897  |
| .7639  | .6917 43059  | .7221 43712  | .8403 92850  | .3062 38930  |
| 0.7640 | 0.6918 15270 | 0.7220 74534 | 0.8405 23472 | 1.3063 22976 |
| .7641  | .6918 87474  | .7220 05348  | .8406 54115  | .3064 07035  |
| .7642  | .6919 59671  | .7219 36156  | .8407 84760  | .3064 91107  |
| .7643  | .6920 31861  | .7218 66957  | .8409 15413  | .3065 75192  |
| .7644  | .6921 04045  | .7217 97750  | .8410 46075  | .3066 59290  |
| 0.7645 | 0.6921 76221 | 0.7217 28536 | 0.8411 76745 | 1.3067 43401 |
| .7646  | .6922 48390  | .7216 59315  | .8413 07424  | .3068 27525  |
| .7647  | .6923 20553  | .7215 90086  | .8414 38110  | .3069 11663  |
| .7648  | .6923 92708  | .7215 20850  | .8415 68806  | .3069 95813  |
| .7649  | .6924 64857  | .7214 51608  | .8416 99510  | .3070 79976  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.7650 | 0.6925 36999 | 0.7213 82357 | 0.8418 30382 | 1.3071 64153 |
| .7651  | .6926 09133  | .7213 13100  | .8419 60942  | .3072 48342  |
| .7652  | .6926 81261  | .7212 43836  | .8420 91672  | .3073 32545  |
| .7653  | .6927 53382  | .7211 74564  | .8422 22409  | .3074 16761  |
| .7654  | .6928 25496  | .7211 05285  | .8423 53155  | .3075 00989  |
| 0.7655 | 0.6928 97603 | 0.7210 35999 | 0.8424 83909 | 1.3076 85281 |
| .7656  | .6929 69703  | .7209 66705  | .8426 14672  | .3076 69486  |
| .7657  | .6930 41797  | .7208 97405  | .8427 45443  | .3077 53754  |
| .7658  | .6931 13883  | .7208 28097  | .8428 76223  | .3078 38035  |
| .7659  | .6931 85962  | .7207 58782  | .8430 07011  | .3079 22330  |
| 0.7660 | 0.6932 58035 | 0.7206 89460 | 0.8431 37807 | 1.3080 06637 |
| .7661  | .6933 30100  | .7206 20130  | .8432 68612  | .3080 90957  |
| .7662  | .6934 02159  | .7205 50794  | .8433 99425  | .3081 75290  |
| .7663  | .6934 74210  | .7204 81450  | .8435 30247  | .3082 59637  |
| .7664  | .6935 46255  | .7204 12099  | .8436 61077  | .3083 43997  |
| 0.7665 | 0.6936 18293 | 0.7203 42741 | 0.8437 91916 | 1.3084 28369 |
| .7666  | .6936 90323  | .7202 73375  | .8439 22763  | .3085 12755  |
| .7667  | .6937 62347  | .7202 04003  | .8440 53618  | .3085 97154  |
| .7668  | .6938 34364  | .7201 34623  | .8441 84482  | .3086 81566  |
| .7669  | .6939 06374  | .7200 65236  | .8443 15355  | .3087 65991  |
| 0.7670 | 0.6939 78377 | 0.7199 95842 | 0.8444 46236 | 1.3088 50429 |
| .7671  | .6940 50373  | .7199 26440  | .8445 77125  | .3088 34880  |
| .7672  | .6941 22363  | .7198 57032  | .8447 08023  | .3089 19344  |
| .7673  | .6941 94345  | .7197 87616  | .8448 38920  | .3091 03821  |
| .7674  | .6942 66320  | .7197 18193  | .8449 69843  | .3091 88312  |
| 0.7675 | 0.6943 38288 | 0.7196 48762 | 0.8451 00766 | 1.3092 72815 |
| .7676  | .6944 10250  | .7195 79325  | .8452 31698  | .3093 57332  |
| .7677  | .6944 82204  | .7195 09880  | .8453 62638  | .3094 41862  |
| .7678  | .6945 54152  | .7194 40429  | .8454 93586  | .3095 26405  |
| .7679  | .6946 26092  | .7193 70970  | .8456 24543  | .3096 10961  |
| 0.7680 | 0.6946 98026 | 0.7193 01503 | 0.8457 55508 | 1.3096 95530 |
| .7681  | .6947 69953  | .7192 32030  | .8458 86482  | .3097 80112  |
| .7682  | .6948 41872  | .7191 62549  | .8460 17464  | .3098 64707  |
| .7683  | .6949 13785  | .7190 93062  | .8461 48455  | .3099 49315  |
| .7684  | .6949 85691  | .7190 23567  | .8462 79454  | .3100 33936  |
| 0.7685 | 0.6950 57590 | 0.7189 54064 | 0.8464 10462 | 1.3101 18571 |
| .7686  | .6951 29482  | .7188 84555  | .8465 41478  | .3102 03219  |
| .7687  | .6952 01367  | .7188 15039  | .8466 72503  | .3102 87879  |
| .7688  | .6952 73245  | .7187 45515  | .8468 03536  | .3103 72553  |
| .7689  | .6953 45116  | .7186 75984  | .8469 34577  | .3104 57240  |
| 0.7690 | 0.6954 16980 | 0.7186 06446 | 0.8470 65627 | 1.3105 41940 |
| .7691  | .6954 88837  | .7185 36900  | .8471 96685  | .3106 26653  |
| .7692  | .6955 60687  | .7184 67348  | .8473 27752  | .3107 11379  |
| .7693  | .6956 32531  | .7183 97788  | .8474 58828  | .3107 96119  |
| .7694  | .6957 04367  | .7183 28222  | .8475 89912  | .3108 80871  |
| 0.7695 | 0.6957 76196 | 0.7182 58647 | 0.8477 21004 | 1.3109 65637 |
| .7696  | .6958 48019  | .7181 89065  | .8478 52105  | .3110 50415  |
| .7697  | .6959 19834  | .7181 19478  | .8479 83214  | .3111 35207  |
| .7698  | .6959 91643  | .7180 49882  | .8481 14332  | .3112 20012  |
| .7699  | .6960 63444  | .7179 80280  | .8482 45458  | .3113 04830  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.7700 | 0.6961 35239 | 0.7179 10870 | 0.8463 76593 | 1.3113 89661 |
| .7701  | .6962 07026  | .7178 41052  | .8465 07736  | .3114 74505  |
| .7702  | .6962 79307  | .7177 71428  | .8468 38693  | .3115 59363  |
| .7703  | .6963 50560  | .7177 01797  | .8437 70048  | .3116 44233  |
| .7704  | .6964 22347  | .7176 32158  | .8469 01216  | .3117 29117  |
| 0.7705 | 0.6964 94107 | 0.7175 62512 | 0.8490 32394 | 1.3118 14013 |
| .7706  | .6965 65860  | .7174 92859  | .8491 63579  | .3113 98923  |
| .7707  | .6966 37606  | .7174 23199  | .8492 94773  | .3119 83846  |
| .7708  | .6967 09344  | .7173 53532  | .8494 25976  | .3120 68792  |
| .7709  | .6967 81076  | .7172 83657  | .8495 57187  | .3121 53731  |
| 0.7710 | 0.6968 52801 | 0.7172 14176 | 0.8496 88407 | 1.3122 38693 |
| .7711  | .6969 24519  | .7171 44487  | .8499 19635  | .3123 23669  |
| .7712  | .6969 96230  | .7170 74791  | .8499 50872  | .3124 08657  |
| .7713  | .6970 67934  | .7170 05087  | .8500 82117  | .3124 93659  |
| .7714  | .6971 39631  | .7169 35377  | .8502 13370  | .3125 78674  |
| 0.7715 | 0.6972 11321 | 0.7168 65659 | 0.8503 44632 | 1.3126 63702 |
| .7716  | .6972 83004  | .7167 95935  | .8504 75903  | .3127 48743  |
| .7717  | .6973 54680  | .7167 26203  | .8506 07182  | .3128 33797  |
| .7718  | .6974 26349  | .7166 56464  | .8507 38470  | .3129 18864  |
| .7719  | .6974 98012  | .7165 86718  | .8508 69766  | .3130 03945  |
| 0.7720 | 0.6975 69667 | 0.7165 16964 | 0.8510 01071 | 1.3130 89038 |
| .7721  | .6976 41315  | .7164 47204  | .8511 32384  | .3131 74145  |
| .7722  | .6977 12956  | .7163 77436  | .8512 63705  | .3132 59265  |
| .7723  | .6977 84590  | .7163 07661  | .8513 95036  | .3133 44398  |
| .7724  | .6978 56218  | .7162 37879  | .8515 26374  | .3134 29544  |
| 0.7725 | 0.6979 27838 | 0.7161 68090 | 0.8516 57721 | 1.3135 14703 |
| .7726  | .6979 99451  | .7160 98293  | .8517 89077  | .3135 99875  |
| .7727  | .6980 71058  | .7160 28490  | .8519 20441  | .3136 85061  |
| .7728  | .6981 42657  | .7159 58679  | .8520 51814  | .3137 70259  |
| .7729  | .6982 14249  | .7158 88861  | .8521 83196  | .3138 55471  |
| 0.7730 | 0.6982 85835 | 0.7158 19036 | 0.8523 14585 | 1.3139 40696 |
| .7731  | .6983 57413  | .7157 49204  | .8524 45984  | .3140 25934  |
| .7732  | .6984 28985  | .7156 79365  | .8525 77391  | .3141 11185  |
| .7733  | .6985 00549  | .7156 09518  | .8527 08906  | .3141 96449  |
| .7734  | .6985 72107  | .7155 39665  | .8528 40230  | .3142 81727  |
| 0.7735 | 0.6986 43657 | 0.7154 69804 | 0.8529 71662 | 1.3143 67017 |
| .7736  | .6987 15201  | .7153 99936  | .8531 03103  | .3144 52321  |
| .7737  | .6987 86737  | .7153 30061  | .8532 34553  | .3145 37638  |
| .7738  | .6988 58267  | .7152 60179  | .8533 66011  | .3146 22968  |
| .7739  | .6989 29789  | .7151 90289  | .8534 97477  | .3147 08311  |
| 0.7740 | 0.6990 01305 | 0.7151 20393 | 0.8536 28952 | 1.3147 93668 |
| .7741  | .6990 72813  | .7150 50489  | .8537 60436  | .3148 79037  |
| .7742  | .6991 44315  | .7149 80578  | .8538 91928  | .3149 64420  |
| .7743  | .6992 15809  | .7149 10660  | .8540 23429  | .3150 49815  |
| .7744  | .6992 87297  | .7148 40735  | .8541 54938  | .3151 35224  |
| 0.7745 | 0.6993 58777 | 0.7147 70805 | 0.8542 86456 | 1.3152 20646 |
| .7746  | .6994 30251  | .7147 00863  | .8544 17982  | .3153 06082  |
| .7747  | .6995 01718  | .7146 30917  | .8545 49517  | .3153 91530  |
| .7748  | .6995 73177  | .7145 60963  | .8546 81061  | .3154 76992  |
| .7749  | .6996 44630  | .7144 91002  | .8548 12613  | .3155 62466  |

| x      | sin x        | cos x        | sinh x       | cosi x       |
|--------|--------------|--------------|--------------|--------------|
| 0.7750 | 0.6997 16075 | 0.7144 21034 | 0.8549 44171 | 1.3156 47954 |
| .7751  | .6997 87514  | .7143 51059  | .8550 75742  | .3157 83455  |
| .7752  | .6998 58946  | .7142 81077  | .8552 07320  | .3158 18969  |
| .7753  | .6999 30370  | .7142 11087  | .8553 38906  | .3159 04497  |
| .7754  | .7000 01788  | .7141 41090  | .8554 70501  | .3160 90037  |
| 0.7755 | 0.7000 73198 | 0.7140 71087 | 0.8556 02104 | 1.3160 75591 |
| .7756  | .7001 44602  | .7140 01076  | .8557 33716  | .3161 61157  |
| .7757  | .7002 15999  | .7139 31058  | .8558 65336  | .3162 46737  |
| .7758  | .7002 87388  | .7138 61033  | .8559 96966  | .3163 32361  |
| .7759  | .7003 58771  | .7137 91000  | .8561 28603  | .3164 17937  |
| 0.7760 | 0.7004 30146 | 0.7137 20961 | 0.8562 60249 | 1.3165 03556 |
| .7761  | .7005 01515  | .7136 50914  | .8563 91903  | .3165 89189  |
| .7762  | .7005 72877  | .7135 80861  | .8565 23567  | .3166 74835  |
| .7763  | .7006 44231  | .7135 10800  | .8566 55238  | .3167 60494  |
| .7764  | .7007 15579  | .7134 40732  | .8567 86919  | .3168 46166  |
| 0.7765 | 0.7007 86919 | 0.7133 70657 | 0.8569 18608 | 1.3169 31861 |
| .7766  | .7008 58253  | .7133 00574  | .8570 50305  | .3170 17549  |
| .7767  | .7009 29579  | .7132 30485  | .8571 82011  | .3171 03261  |
| .7768  | .7010 00899  | .7131 60388  | .8573 13726  | .3171 88986  |
| .7769  | .7010 72212  | .7130 90285  | .8574 45449  | .3172 74724  |
| 0.7770 | 0.7011 43517 | 0.7130 20174 | 0.8575 77181 | 1.3173 60475 |
| .7771  | .7012 14816  | .7129 50056  | .8577 08921  | .3174 46239  |
| .7772  | .7012 86107  | .7128 79931  | .8578 40670  | .3175 32017  |
| .7773  | .7013 57392  | .7128 09799  | .8579 72427  | .3176 17807  |
| .7774  | .7014 28669  | .7127 39660  | .8581 04193  | .3177 03611  |
| 0.7775 | 0.7014 99939 | 0.7126 69513 | 0.8582 35968 | 1.3177 89428 |
| .7776  | .7015 71203  | .7125 99360  | .8583 67751  | .3178 75250  |
| .7777  | .7016 42459  | .7125 29199  | .8584 99543  | .3179 61102  |
| .7778  | .7017 13709  | .7124 59031  | .8586 31344  | .3180 46958  |
| .7779  | .7017 84951  | .7123 88856  | .8587 63153  | .3181 32828  |
| 0.7780 | 0.7018 56187 | 0.7123 18674 | 0.8588 94970 | 1.3182 18711 |
| .7781  | .7019 27415  | .7122 48485  | .8590 26796  | .3183 04607  |
| .7782  | .7019 98636  | .7121 78289  | .8591 58631  | .3183 90516  |
| .7783  | .7020 69851  | .7121 08085  | .8592 90474  | .3184 76439  |
| .7784  | .7021 41058  | .7120 37875  | .8594 22326  | .3185 62374  |
| 0.7785 | 0.7022 12258 | 0.7119 67657 | 0.8595 54187 | 1.3186 48323 |
| .7786  | .7022 83451  | .7118 97432  | .8596 86056  | .3187 34285  |
| .7787  | .7023 54638  | .7118 27200  | .8598 17934  | .3188 20260  |
| .7788  | .7024 25817  | .7117 56961  | .8599 49820  | .3189 06249  |
| .7789  | .7024 96989  | .7116 86715  | .8600 81715  | .3189 92250  |
| 0.7790 | 0.7025 68154 | 0.7116 16462 | 0.8602 13619 | 1.3190 78265 |
| .7791  | .7026 39312  | .7115 46201  | .8603 45531  | .3191 64293  |
| .7792  | .7027 10463  | .7114 75934  | .8604 77451  | .3192 50334  |
| .7793  | .7027 81607  | .7114 05659  | .8606 09381  | .3193 36389  |
| .7794  | .7028 52745  | .7113 35378  | .8607 41319  | .3194 22456  |
| 0.7795 | 0.7029 23875 | 0.7112 65089 | 0.8608 73265 | 1.3195 08537 |
| .7796  | .7029 94998  | .7111 94793  | .8610 05220  | .3195 94631  |
| .7797  | .7030 66113  | .7111 24490  | .8611 37184  | .3196 80738  |
| .7798  | .7031 37222  | .7110 54180  | .8612 69156  | .3197 66858  |
| .7799  | .7032 08324  | .7109 83862  | .8614 01137  | .3198 52992  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.7800 | 0.7032 79419 | 0.7109 13538 | 0.8615 33127 | 1.3199 39138 |
| .7801  | .7033 30507  | .7108 43207  | .8616 65125  | .3200 25298  |
| .7802  | .7034 21588  | .7107 72868  | .8617 97132  | .3201 11471  |
| .7803  | .7034 92662  | .7107 02522  | .8619 29148  | .3201 97658  |
| .7804  | .7035 63728  | .7106 32169  | .8620 61172  | .3202 83857  |
| 0.7805 | 0.7036 34786 | 0.7105 61809 | 0.8621 93204 | 1.3203 70070 |
| .7806  | .7037 05841  | .7104 91442  | .8623 25246  | .3204 56296  |
| .7807  | .7037 76886  | .7104 21068  | .8624 57296  | .3205 42535  |
| .7808  | .7038 47925  | .7103 50667  | .8625 89354  | .3206 28787  |
| .7809  | .7039 18956  | .7102 80299  | .8627 21421  | .3207 15053  |
| 0.7810 | 0.7039 89981 | 0.7102 09903 | 0.8628 53497 | 1.3208 01332 |
| .7811  | .7040 60998  | .7101 39501  | .8629 85562  | .3208 87624  |
| .7812  | .7041 32009  | .7100 69091  | .8631 17675  | .3209 73929  |
| .7813  | .7042 03012  | .7099 98674  | .8632 49776  | .3210 60247  |
| .7814  | .7042 74009  | .7099 28250  | .8633 81867  | .3211 46879  |
| 0.7815 | 0.7043 44998 | 0.7098 57820 | 0.8635 14006 | 1.3212 32924 |
| .7816  | .7044 15980  | .7097 87381  | .8636 46133  | .3213 19262  |
| .7817  | .7044 86955  | .7097 16936  | .8637 78270  | .3214 05653  |
| .7818  | .7045 57924  | .7096 46484  | .8639 10415  | .3214 92037  |
| .7819  | .7046 28885  | .7095 76025  | .8640 42568  | .3215 78435  |
| 0.7820 | 0.7046 99839 | 0.7095 05558 | 0.8641 74730 | 1.3216 64846 |
| .7821  | .7047 70786  | .7094 35085  | .8643 06901  | .3217 51270  |
| .7822  | .7048 41726  | .7093 64604  | .8644 39080  | .3218 37707  |
| .7823  | .7049 12659  | .7092 94116  | .8645 71269  | .3219 24158  |
| .7824  | .7049 83565  | .7092 23622  | .8647 03465  | .3220 10621  |
| 0.7825 | 0.7050 54503 | 0.7091 53120 | 0.8648 35671 | 1.3220 97098 |
| .7826  | .7051 25415  | .7090 82611  | .8649 67885  | .3221 83588  |
| .7827  | .7051 96320  | .7090 12095  | .8651 00107  | .3222 70092  |
| .7828  | .7052 67218  | .7089 41571  | .8652 32339  | .3223 56608  |
| .7829  | .7053 38108  | .7088 71041  | .8653 64579  | .3224 43138  |
| 0.7830 | 0.7054 08992 | 0.7088 00504 | 0.8654 96827 | 1.3225 29681 |
| .7831  | .7054 79868  | .7087 29959  | .8656 29085  | .3226 16238  |
| .7832  | .7055 50738  | .7086 59408  | .8657 61351  | .3227 02807  |
| .7833  | .7056 21600  | .7085 88849  | .8658 93625  | .3227 89390  |
| .7834  | .7056 92456  | .7085 18284  | .8660 25908  | .3228 75966  |
| 0.7835 | 0.7057 63304 | 0.7084 47711 | 0.8661 58200 | 1.3229 62595 |
| .7836  | .7058 34145  | .7083 77131  | .8662 90501  | .3230 49218  |
| .7837  | .7059 04979  | .7083 06544  | .8664 22810  | .3231 35853  |
| .7838  | .7059 75806  | .7082 35950  | .8665 55128  | .3232 22502  |
| .7839  | .7060 46627  | .7081 65349  | .8666 87455  | .3233 09164  |
| 0.7840 | 0.7061 17440 | 0.7080 94741 | 0.8668 19790 | 1.3233 95840 |
| .7841  | .7061 88245  | .7080 24125  | .8669 52134  | .3234 82528  |
| .7842  | .7062 59044  | .7079 53503  | .8670 84487  | .3235 69230  |
| .7843  | .7063 29836  | .7078 82873  | .8672 16848  | .3236 55945  |
| .7844  | .7064 00621  | .7078 12237  | .8673 49218  | .3237 42673  |
| 0.7845 | 0.7064 71399 | 0.7077 41593 | 0.8674 81596 | 1.3238 29415 |
| .7846  | .7065 42169  | .7076 70943  | .8676 13984  | .3239 16170  |
| .7847  | .7066 12933  | .7076 00285  | .8677 46380  | .3240 02938  |
| .7848  | .7066 83689  | .7075 29620  | .8678 78784  | .3240 89719  |
| .7849  | .7067 54439  | .7074 58948  | .8680 11197  | .3241 76514  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.7850 | 0.7068 25181 | 0.7073 88269 | 0.8681 43619 | 1.3242 63321 |
| .7851  | .7068 95916  | .7073 17583  | .8682 76050  | .3243 50142  |
| .7852  | .7069 66645  | .7072 46890  | .8684 08490  | .3244 36976  |
| .7853  | .7070 37366  | .7071 76190  | .8685 40938  | .3245 23824  |
| .7854  | .7071 08080  | .7071 05483  | .8686 73394  | .3246 10685  |
| 0.7855 | 0.7071 78787 | 0.7070 34768 | 0.8688 05860 | 1.3246 97559 |
| .7856  | .7072 49487  | .7069 64047  | .8689 38334  | .3247 84446  |
| .7857  | .7073 20180  | .7068 93318  | .8690 70817  | .3248 71346  |
| .7858  | .7073 90865  | .7068 22583  | .8692 03308  | .3249 58260  |
| .7859  | .7074 61544  | .7067 51840  | .8693 35808  | .3250 45187  |
| 0.7860 | 0.7075 32216 | 0.7066 81090 | 0.8694 68317 | 1.3251 32127 |
| .7861  | .7076 02880  | .7066 10334  | .8696 00835  | .3252 19081  |
| .7862  | .7076 73538  | .7065 39570  | .8697 33361  | .3253 06047  |
| .7863  | .7077 44188  | .7064 68799  | .8698 65896  | .3253 93027  |
| .7864  | .7078 14832  | .7063 98021  | .8699 98440  | .3254 80021  |
| 0.7865 | 0.7078 85468 | 0.7063 27236 | 0.8701 30992 | 1.3255 67027 |
| .7866  | .7079 56097  | .7062 56444  | .8702 63553  | .3256 54047  |
| .7867  | .7080 26719  | .7061 85645  | .8703 96123  | .3257 41080  |
| .7868  | .7080 97334  | .7061 14839  | .8705 28701  | .3258 28126  |
| .7869  | .7081 67942  | .7060 44025  | .8706 61288  | .3259 15185  |
| 0.7870 | 0.7082 38543 | 0.7059 73205 | 0.8707 93884 | 1.3260 02258 |
| .7871  | .7083 09137  | .7059 02378  | .8709 26439  | .3260 89344  |
| .7872  | .7083 79724  | .7058 31543  | .8710 59102  | .3261 76443  |
| .7873  | .7084 50303  | .7057 60702  | .8711 91724  | .3262 63556  |
| .7874  | .7085 20876  | .7056 89853  | .8713 24355  | .3263 50682  |
| 0.7875 | 0.7085 91441 | 0.7056 18997 | 0.8714 56994 | 1.3264 37821 |
| .7876  | .7086 61999  | .7055 48135  | .8715 89642  | .3265 24973  |
| .7877  | .7087 32551  | .7054 77265  | .8717 22299  | .3266 12139  |
| .7878  | .7088 03095  | .7054 06388  | .8718 54965  | .3266 99318  |
| .7879  | .7088 73632  | .7053 35504  | .8719 87639  | .3267 86510  |
| 0.7880 | 0.7089 44162 | 0.7052 64614 | 0.8721 20322 | 1.3268 73715 |
| .7881  | .7090 14685  | .7051 93716  | .8722 53014  | .3269 60934  |
| .7882  | .7090 85201  | .7051 22811  | .8723 85714  | .3270 48166  |
| .7883  | .7091 55709  | .7050 51899  | .8725 18423  | .3271 35411  |
| .7884  | .7092 26211  | .7049 80979  | .8726 51141  | .3272 22670  |
| 0.7885 | 0.7092 96706 | 0.7049 10053 | 0.8727 83868 | 1.3273 09941 |
| .7886  | .7093 67193  | .7048 39120  | .8729 16603  | .3273 97226  |
| .7887  | .7094 37674  | .7047 68180  | .8730 49347  | .3274 84525  |
| .7888  | .7095 08147  | .7046 97233  | .8731 82100  | .3275 71836  |
| .7889  | .7095 78613  | .7046 26278  | .8733 14862  | .3276 59161  |
| 0.7890 | 0.7096 49072 | 0.7045 55317 | 0.8734 47632 | 1.3277 46499 |
| .7891  | .7097 19524  | .7044 84348  | .8735 80411  | .3278 33851  |
| .7892  | .7097 89969  | .7044 13373  | .8737 13199  | .3279 21215  |
| .7893  | .7098 60407  | .7043 42390  | .8738 45995  | .3280 08593  |
| .7894  | .7099 30837  | .7042 71401  | .8739 78801  | .3280 95984  |
| 0.7895 | 0.7100 01261 | 0.7042 00404 | 0.8741 11614 | 1.3281 83389 |
| .7896  | .7100 71677  | .7041 29401  | .8742 44437  | .3282 70807  |
| .7897  | .7101 42087  | .7040 58390  | .8743 77269  | .3283 58238  |
| .7898  | .7102 12489  | .7039 87372  | .8745 10109  | .3284 45682  |
| .7899  | .7102 82884  | .7039 16347  | .8746 42958  | .3285 33140  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.7900 | 0.7103 53272 | 0.7038 45316 | 0.8747 75815 | 1.3286 20611 |
| .7901  | .7104 23653  | .7037 74277  | .8749 08682  | .3287 08095  |
| .7902  | .7104 94027  | .7037 05231  | .8750 41557  | .3287 95593  |
| .7903  | .7105 64394  | .7036 32178  | .8751 74441  | .3288 83103  |
| .7904  | .7106 34754  | .7035 61118  | .8753 C7334  | .3289 70627  |
| 0.7905 | 0.7107 05106 | 0.7034 90051 | 0.8754 40235 | 1.3290 58165 |
| .7906  | .7107 75452  | .7034 18977  | .8755 73145  | .3291 45715  |
| .7907  | .7108 45790  | .7033 47896  | .8757 06064  | .3292 33279  |
| .7908  | .7109 16121  | .7032 76808  | .8758 36992  | .3293 20857  |
| .7909  | .7109 86445  | .7032 05713  | .8759 71928  | .3294 08447  |
| 0.7910 | 0.7110 56762 | 0.7031 34611 | 0.8761 04874 | 1.3294 96051 |
| .7911  | .7111 27072  | .7030 63501  | .8762 37828  | .3295 83668  |
| .7912  | .7111 97375  | .7029 92385  | .8763 70790  | .3296 71299  |
| .7913  | .7112 67671  | .7029 21262  | .8765 03762  | .3297 58942  |
| .7914  | .7113 37959  | .7028 50132  | .8766 36742  | .3298 46599  |
| 0.7915 | 0.7114 08241 | 0.7027 78994 | 0.8767 69731 | 1.3299 34270 |
| .7916  | .7114 78515  | .7027 07850  | .8769 02729  | .3300 21953  |
| .7917  | .7115 48782  | .7026 36699  | .8770 35736  | .3301 09650  |
| .7918  | .7116 19043  | .7025 65540  | .8771 68751  | .3301 97360  |
| .7919  | .7116 89296  | .7024 94375  | .8773 01775  | .3302 85084  |
| 0.7920 | 0.7117 59541 | 0.7024 23202 | 0.8774 34808 | 1.3303 72821 |
| .7921  | .7118 29780  | .7023 52023  | .8775 67850  | .3304 60571  |
| .7922  | .7119 00012  | .7022 80836  | .8777 00900  | .3305 48334  |
| .7923  | .7119 70236  | .7022 09643  | .8778 33959  | .3306 36111  |
| .7924  | .7120 40454  | .7021 38442  | .8779 67027  | .3307 23901  |
| 0.7925 | 0.7121 10664 | 0.7020 67235 | 0.8781 00104 | 1.3308 11705 |
| .7926  | .7121 80867  | .7019 96020  | .8782 33190  | .3308 99521  |
| .7927  | .7122 51063  | .7019 24799  | .8783 66284  | .3309 87351  |
| .7928  | .7123 21252  | .7018 53570  | .8784 99387  | .3310 75194  |
| .7929  | .7123 91434  | .7017 82334  | .8786 32499  | .3311 63051  |
| 0.7930 | 0.7124 61609 | 0.7017 11092 | 0.8787 65620 | 1.3312 50921 |
| .7931  | .7125 31776  | .7016 39842  | .8788 98749  | .3313 38804  |
| .7932  | .7126 01937  | .7015 68585  | .8790 31888  | .3314 26701  |
| .7933  | .7126 72090  | .7014 97322  | .8791 65035  | .3315 14611  |
| .7934  | .7127 42236  | .7014 26051  | .8792 98190  | .3316 02534  |
| 0.7935 | 0.7128 12375 | 0.7013 54773 | 0.8794 31355 | 1.3316 90470 |
| .7936  | .7128 82507  | .7012 83488  | .8795 64529  | .3317 78420  |
| .7937  | .7129 52632  | .7012 12197  | .8796 97711  | .3318 66383  |
| .7938  | .7130 22749  | .7011 40898  | .8798 30902  | .3319 54360  |
| .7939  | .7130 92860  | .7010 69592  | .8799 64102  | .3320 42349  |
| 0.7940 | 0.7131 62963 | 0.7009 98279 | 0.8800 97310 | 1.3321 30352 |
| .7941  | .7132 33060  | .7009 26960  | .8802 30528  | .3322 18369  |
| .7942  | .7133 03149  | .7008 55633  | .8803 63754  | .3323 06398  |
| .7943  | .7133 73231  | .7007 84299  | .8804 96989  | .3323 94441  |
| .7944  | .7134 43306  | .7007 12958  | .8806 30233  | .3324 82498  |
| 0.7945 | 0.7135 13373 | 0.7006 41610 | 0.8807 63486 | 1.3325 70568 |
| .7946  | .7135 83434  | .7005 70255  | .8808 96747  | .3326 58651  |
| .7947  | .7136 53487  | .7004 98894  | .8810 30017  | .3327 46747  |
| .7948  | .7137 23534  | .7004 27525  | .8811 63296  | .3328 34857  |
| .7949  | .7137 93573  | .7003 56149  | .8812 96584  | .3329 22980  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.7950 | 0.7138 63605 | 0.7002 84766 | 0.8814 89681 | 1.3350 11116 |
| .7951  | .7139 33630  | .7002 15376  | .8815 93129  | .3350 99266  |
| .7952  | .7140 03648  | .7001 41979  | .8816 96601  | .3351 87429  |
| .7953  | .7140 73658  | .7000 70575  | .8818 29824  | .3352 75605  |
| .7954  | .7141 43662  | .6999 99165  | .8819 63156  | .3353 63794  |
| 0.7955 | 0.7142 13658 | 0.6999 27747 | 0.8820 96407 | 1.3354 51997 |
| .7956  | .7142 83647  | .6998 56322  | .8822 29846  | .3355 40214  |
| .7957  | .7143 53629  | .6997 84890  | .8823 63205  | .3356 28443  |
| .7958  | .7144 23604  | .6997 13451  | .8824 96572  | .3357 16686  |
| .7959  | .7144 93572  | .6996 42005  | .8826 29948  | .3358 04943  |
| 0.7960 | 0.7145 63533 | 0.6995 70552 | 0.8827 63333 | 1.3358 93212 |
| .7961  | .7146 33486  | .6994 99093  | .8828 96727  | .3359 81495  |
| .7962  | .7147 03432  | .6994 27626  | .8830 30129  | .3360 69792  |
| .7963  | .7147 73372  | .6993 56152  | .8831 63541  | .3361 58101  |
| .7964  | .7148 43304  | .6992 84671  | .8832 96961  | .3362 46424  |
| 0.7965 | 0.7149 13229 | 0.6992 13183 | 0.8834 30390 | 1.3363 34761 |
| .7966  | .7149 83146  | .6991 41688  | .8835 63828  | .3364 23111  |
| .7967  | .7150 53057  | .6990 70187  | .8836 97275  | .3365 11474  |
| .7968  | .7151 22960  | .6989 98678  | .8838 30730  | .3365 99850  |
| .7969  | .7151 92857  | .6989 27162  | .8839 64195  | .3366 88240  |
| 0.7970 | 0.7152 62746 | 0.6988 55639 | 0.8840 97668 | 1.3367 76643 |
| .7971  | .7153 32628  | .6987 84109  | .8842 31150  | .3368 65059  |
| .7972  | .7154 02503  | .6987 12573  | .8843 64641  | .3369 53489  |
| .7973  | .7154 72370  | .6986 41029  | .8844 98141  | .3370 41932  |
| .7974  | .7155 42231  | .6985 69478  | .8846 31649  | .3371 30389  |
| 0.7975 | 0.7156 12084 | 0.6984 97920 | 0.8847 65167 | 1.3372 18859 |
| .7976  | .7156 81930  | .6984 26356  | .8848 98693  | .3373 07342  |
| .7977  | .7157 51769  | .6983 54784  | .8850 32228  | .3373 95838  |
| .7978  | .7158 21601  | .6982 83205  | .8851 65772  | .3374 84348  |
| .7979  | .7158 91426  | .6982 11620  | .8852 99325  | .3375 72871  |
| 0.7980 | 0.7159 61244 | 0.6981 40027 | 0.8854 32887 | 1.3376 61408 |
| .7981  | .7160 31054  | .6980 68428  | .8855 66457  | .3377 49958  |
| .7982  | .7161 00857  | .6979 96821  | .8857 00037  | .3378 38521  |
| .7983  | .7161 70653  | .6979 25207  | .8858 33625  | .3379 27098  |
| .7984  | .7162 40442  | .6978 53587  | .8859 67222  | .3380 15688  |
| 0.7985 | 0.7163 10224 | 0.6977 81959 | 0.8861 00828 | 1.3381 04291 |
| .7986  | .7163 79999  | .6977 10325  | .8862 34443  | .3381 92908  |
| .7987  | .7164 49766  | .6976 38683  | .8863 68067  | .3382 81538  |
| .7988  | .7165 19527  | .6975 67035  | .8865 01699  | .3383 70182  |
| .7989  | .7165 89280  | .6974 95379  | .8866 35341  | .3384 58839  |
| 0.7990 | 0.7166 59026 | 0.6974 23717 | 0.8867 68991 | 1.3385 47509 |
| .7991  | .7167 28764  | .6973 52048  | .8869 02650  | .3386 36192  |
| .7992  | .7167 98496  | .6972 80371  | .8870 36318  | .3387 24889  |
| .7993  | .7168 68220  | .6972 08688  | .8871 69995  | .3388 13600  |
| .7994  | .7169 37938  | .6971 36998  | .8873 03681  | .3389 02323  |
| 0.7995 | 0.7170 07648 | 0.6970 65300 | 0.8874 37376 | 1.3389 91060 |
| .7996  | .7170 77351  | .6969 93596  | .8875 71079  | .3390 79811  |
| .7997  | .7171 47047  | .6969 21885  | .8877 04792  | .3391 68575  |
| .7998  | .7172 16735  | .6968 50167  | .8878 38513  | .3392 57352  |
| .7999  | .7172 86417  | .6967 78441  | .8879 72243  | .3393 46142  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.8000 | 0.7173 56091 | 0.6967 06709 | 0.8881 05962 | 1.3374 34946 |
| .8001  | .7174 25758  | .6966 34970  | .8882 39730  | .3375 23764  |
| .8002  | .7174 95418  | .6965 63224  | .8883 73487  | .3376 12594  |
| .8003  | .7175 65071  | .6964 91471  | .8885 07253  | .3377 01438  |
| .8004  | .7176 34718  | .6964 19711  | .8886 41027  | .3377 90296  |
| 0.8005 | 0.7177 04355 | 0.6963 47944 | 0.8887 74811 | 1.3378 79166 |
| .8006  | .7177 73986  | .6962 76170  | .8889 08603  | .3379 68051  |
| .8007  | .7178 43610  | .6962 04389  | .8890 42404  | .3380 56948  |
| .8008  | .7179 13227  | .6961 32602  | .8891 76214  | .3381 45859  |
| .8009  | .7179 82836  | .6960 60807  | .8893 10033  | .3382 34783  |
| 0.8010 | 0.7180 52439 | 0.6959 89005 | 0.8894 43861 | 1.3383 23721 |
| .8011  | .7181 22034  | .6959 17196  | .8895 77698  | .3384 12672  |
| .8012  | .7181 91622  | .6958 45381  | .8897 11544  | .3385 01637  |
| .8013  | .7182 61203  | .6957 73558  | .8898 45399  | .3385 90615  |
| .8014  | .7183 30777  | .6957 01728  | .8899 79262  | .3386 79606  |
| 0.8015 | 0.7184 00344 | 0.6956 29892 | 0.8901 13134 | 1.3387 68610 |
| .8016  | .7184 69903  | .6955 58048  | .8902 47016  | .3388 57628  |
| .8017  | .7185 39455  | .6954 86198  | .8903 80906  | .3389 46660  |
| .8018  | .7186 09000  | .6954 14340  | .8905 14805  | .3390 35705  |
| .8019  | .7186 78538  | .6953 42476  | .8906 48713  | .3391 24763  |
| 0.8020 | 0.7187 48069 | 0.6952 70605 | 0.8907 82630 | 1.3392 13834 |
| .8021  | .7188 17592  | .6951 98726  | .8909 16556  | .3393 02919  |
| .8022  | .7188 87108  | .6951 26841  | .8910 50491  | .3393 92018  |
| .8023  | .7189 56618  | .6950 54949  | .8911 84434  | .3394 81129  |
| .8024  | .7190 26119  | .6949 83050  | .8913 18387  | .3395 70255  |
| 0.8025 | 0.7190 95614 | 0.6949 11144 | 0.8914 52348 | 1.3396 59393 |
| .8026  | .7191 65102  | .6948 39231  | .8915 86319  | .3397 48545  |
| .8027  | .7192 34582  | .6947 67311  | .8917 20298  | .3398 37710  |
| .8028  | .7193 04055  | .6946 95384  | .8918 54286  | .3399 26889  |
| .8029  | .7193 73521  | .6946 23450  | .8919 88283  | .3400 16081  |
| 0.8030 | 0.7194 42980 | 0.6945 51509 | 0.8921 22290 | 1.3401 05287 |
| .8031  | .7195 12431  | .6944 79561  | .8922 56305  | .3401 94506  |
| .8032  | .7195 81876  | .6944 07607  | .8923 90328  | .3402 83738  |
| .8033  | .7196 51313  | .6943 35645  | .8925 24361  | .3403 72984  |
| .8034  | .7197 20743  | .6942 63676  | .8926 58403  | .3404 62243  |
| 0.8035 | 0.7197 90166 | 0.6941 91701 | 0.8927 92454 | 1.3405 51515 |
| .8036  | .7198 59581  | .6941 19718  | .8929 26513  | .3406 40801  |
| .8037  | .7199 28990  | .6940 47729  | .8930 60582  | .3407 30101  |
| .8038  | .7199 98391  | .6939 75733  | .8931 94659  | .3408 19413  |
| .8039  | .7200 67785  | .6939 03729  | .8933 28746  | .3409 08740  |
| 0.8040 | 0.7201 37171 | 0.6938 31719 | 0.8934 62841 | 1.3409 98079 |
| .8041  | .7202 06551  | .6937 59702  | .8935 96945  | .3410 87432  |
| .8042  | .7202 75923  | .6936 87678  | .8937 31059  | .3411 76799  |
| .8043  | .7203 45289  | .6936 15647  | .8938 65181  | .3412 66178  |
| .8044  | .7204 14647  | .6935 43609  | .8939 99312  | .3413 55572  |
| 0.8045 | 0.7204 83997 | 0.6934 71564 | 0.8941 33452 | 1.3414 44978 |
| .8046  | .7205 53341  | .6933 99512  | .8942 67601  | .3415 34398  |
| .8047  | .7206 22677  | .6933 27453  | .8944 01759  | .3416 23832  |
| .8048  | .7206 92006  | .6932 55387  | .8945 35926  | .3417 13279  |
| .8049  | .7207 61328  | .6931 83315  | .8946 70101  | .3418 02739  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.8050 | 0.7208 30643 | 0.6931 11235 | 0.8948 04286 | 1.3418 92213 |
| .8051  | .7208 99951  | .6930 39148  | .8949 38480  | .3419 81700  |
| .8052  | .7209 69251  | .6929 70555  | .8950 72682  | .3420 71200  |
| .8053  | .7210 38544  | .6928 94955  | .8952 06894  | .3421 60714  |
| .8054  | .7211 07830  | .6928 22847  | .8953 41115  | .3422 50242  |
| 0.8055 | 0.7211 77108 | 0.6927 50733 | 0.8954 75344 | 1.3423 39783 |
| .8056  | .7212 46380  | .6926 78612  | .8956 09583  | .3424 29337  |
| .8057  | .7213 15644  | .6926 06484  | .8957 43830  | .3425 18905  |
| .8058  | .7213 84901  | .6925 34349  | .8958 78086  | .3426 08486  |
| .8059  | .7214 54151  | .6924 62207  | .8960 12352  | .3426 98080  |
| 0.8060 | 0.7215 23394 | 0.6923 90058 | 0.8961 46626 | 1.3427 87688 |
| .8061  | .7215 92629  | .6923 17902  | .8962 80909  | .3428 77309  |
| .8062  | .7216 61857  | .6922 45739  | .8964 15201  | .3429 66944  |
| .8063  | .7217 31078  | .6921 73570  | .8965 49503  | .3430 56592  |
| .8064  | .7218 00292  | .6921 01393  | .8966 83813  | .3431 46254  |
| 0.8065 | 0.7218 69499 | 0.6920 29210 | 0.8968 18132 | 1.3432 35929 |
| .8066  | .7219 38698  | .6919 57019  | .8969 52460  | .3433 25618  |
| .8067  | .7220 07890  | .6918 84822  | .8970 86797  | .3434 15320  |
| .8068  | .7220 77075  | .6918 12618  | .8972 21143  | .3435 05035  |
| .8069  | .7221 46252  | .6917 40407  | .8973 55498  | .3435 94764  |
| 0.8070 | 0.7222 15423 | 0.6916 68188 | 0.8974 89862 | 1.3436 84506 |
| .8071  | .7222 84586  | .6915 95963  | .8976 24235  | .3437 74262  |
| .8072  | .7223 53742  | .6915 23732  | .8977 58617  | .3438 64031  |
| .8073  | .7224 22891  | .6914 51493  | .8978 93008  | .3439 53814  |
| .8074  | .7224 92032  | .6913 79247  | .8980 27408  | .3440 43610  |
| 0.8075 | 0.7225 61167 | 0.6913 06994 | 0.8981 61816 | 1.3441 33419 |
| .8076  | .7226 30294  | .6912 34735  | .8982 96234  | .3442 23242  |
| .8077  | .7226 99414  | .6911 62468  | .8984 30661  | .3443 13078  |
| .8078  | .7227 68526  | .6910 90195  | .8985 65097  | .3444 02928  |
| .8079  | .7228 37632  | .6910 17915  | .8986 99542  | .3444 92791  |
| 0.8080 | 0.7229 06730 | 0.6909 45627 | 0.8988 33995 | 1.3445 82668 |
| .8081  | .7229 75821  | .6908 73333  | .8989 68458  | .3446 72558  |
| .8082  | .7230 44905  | .6908 01032  | .8991 02930  | .3447 62462  |
| .8083  | .7231 13981  | .6907 28724  | .8992 37411  | .3448 52379  |
| .8084  | .7231 83050  | .6906 56409  | .8993 71900  | .3449 42309  |
| 0.8085 | 0.7232 52112 | 0.6905 84088 | 0.8995 06399 | 1.3450 32253 |
| .8086  | .7233 21167  | .6905 11759  | .8996 40907  | .3451 22211  |
| .8087  | .7233 90215  | .6904 39423  | .8997 75424  | .3452 12181  |
| .8088  | .7234 59255  | .6903 67081  | .8999 09949  | .3453 02166  |
| .8089  | .7235 28288  | .6902 94732  | .9000 44484  | .3453 92163  |
| 0.8090 | 0.7235 97314 | 0.6902 22375 | 0.9001 79028 | 1.3454 82175 |
| .8091  | .7236 66333  | .6901 50012  | .9003 13580  | .3455 72199  |
| .8092  | .7237 35344  | .6900 77642  | .9004 48142  | .3456 62237  |
| .8093  | .7238 04348  | .6900 05265  | .9005 82713  | .3457 52289  |
| .8094  | .7238 73345  | .6899 32881  | .9007 17293  | .3458 42354  |
| 0.8095 | 0.7239 42335 | 0.6898 60490 | 0.9008 51881 | 1.3459 32432 |
| .8096  | .7240 11317  | .6897 88093  | .9009 86479  | .3460 22524  |
| .8097  | .7240 80292  | .6897 15688  | .9011 21086  | .3461 12630  |
| .8098  | .7241 49260  | .6896 43277  | .9012 55702  | .3462 02748  |
| .8099  | .7242 18221  | .6895 70858  | .9013 90326  | .3462 92881  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.8100 | 0.7242 87174 | 0.6894 98433 | 0.9015 24960 | 1.3463 83026 |
| .8101  | .7243 56121  | .6894 26001  | .9016 59603  | .3464 73186  |
| .8102  | .7244 25060  | .6893 53562  | .9017 94255  | .3465 63358  |
| .8103  | .7244 93991  | .6892 81116  | .9019 28916  | .3466 53545  |
| .8104  | .7245 62916  | .6892 08663  | .9020 63586  | .3467 43744  |
| 0.8105 | 0.7246 31833 | 0.6891 36203 | 0.9021 98264 | 1.3468 33957 |
| .8106  | .7247 00743  | .6890 63737  | .9023 32952  | .3469 24184  |
| .8107  | .7247 69646  | .6889 91263  | .9024 67649  | .3470 14424  |
| .8108  | .7248 38541  | .6889 18783  | .9026 02355  | .3471 04677  |
| .8109  | .7249 07430  | .6888 46295  | .9027 37070  | .3471 94944  |
| 0.8110 | 0.7249 76311 | 0.6887 73801 | 0.9028 71794 | 1.3472 85225 |
| .8111  | .7250 45184  | .6887 01300  | .9030 06527  | .3473 75519  |
| .8112  | .7251 14051  | .6886 28792  | .9031 41269  | .3474 65826  |
| .8113  | .7251 82910  | .6885 56277  | .9032 76020  | .3475 56147  |
| .8114  | .7252 51762  | .6884 83756  | .9034 10781  | .3476 46481  |
| 0.8115 | 0.7253 20607 | 0.6884 11227 | 0.9035 45550 | 1.3477 36829 |
| .8116  | .7253 89444  | .6883 38691  | .9036 80328  | .3478 27190  |
| .8117  | .7254 58275  | .6882 66149  | .9038 15115  | .3479 17565  |
| .8118  | .7255 27098  | .6881 93600  | .9039 49911  | .3480 07953  |
| .8119  | .7255 95913  | .6881 21044  | .9040 84717  | .3480 98355  |
| 0.8120 | 0.7256 64722 | 0.6880 48481 | 0.9042 19531 | 1.3481 88770 |
| .8121  | .7257 33523  | .6879 75911  | .9043 54355  | .3482 79199  |
| .8122  | .7258 02317  | .6879 03334  | .9044 89187  | .3483 69641  |
| .8123  | .7258 71104  | .6878 30750  | .9046 24028  | .3484 60097  |
| .8124  | .7259 39883  | .6877 58160  | .9047 58879  | .3485 50566  |
| 0.8125 | 0.7260 08655 | 0.6876 85562 | 0.9048 93739 | 1.3486 41049 |
| .8126  | .7260 77420  | .6876 12956  | .9050 28507  | .3487 31545  |
| .8127  | .7261 46178  | .6875 40347  | .9051 63465  | .3488 22054  |
| .8128  | .7262 14928  | .6874 67729  | .9052 98372  | .3489 12577  |
| .8129  | .7262 83671  | .6873 95104  | .9054 33267  | .3490 03114  |
| 0.8130 | 0.7263 52407 | 0.6873 22472 | 0.9055 68172 | 1.3490 93664 |
| .8131  | .7264 21136  | .6872 49833  | .9057 03086  | .3491 84228  |
| .8132  | .7264 89857  | .6871 77168  | .9058 38009  | .3492 74805  |
| .8133  | .7265 58571  | .6871 04535  | .9059 72941  | .3493 65395  |
| .8134  | .7266 27278  | .6870 31876  | .9061 07882  | .3494 55999  |
| 0.8135 | 0.7266 95978 | 0.6869 59210 | 0.9062 42832 | 1.3495 46617 |
| .8136  | .7267 64670  | .6868 86537  | .9063 77791  | .3496 37248  |
| .8137  | .7268 33355  | .6868 13857  | .9065 12760  | .3497 27892  |
| .8138  | .7269 02033  | .6867 41170  | .9066 47737  | .3498 18550  |
| .8139  | .7269 70703  | .6866 68477  | .9067 82723  | .3499 09222  |
| 0.8140 | 0.7270 39366 | 0.6865 95776 | 0.9069 17719 | 1.3499 99907 |
| .8141  | .7271 08022  | .6865 23069  | .9070 52723  | .3500 90606  |
| .8142  | .7271 76671  | .6864 50354  | .9071 87737  | .3501 81318  |
| .8143  | .7272 45312  | .6863 77633  | .9073 22760  | .3502 72043  |
| .8144  | .7273 13947  | .6863 04905  | .9074 57791  | .3503 62782  |
| 0.8145 | 0.7273 82573 | 0.6862 32171 | 0.9075 92832 | 1.3504 53535 |
| .8146  | .7274 51193  | .6861 59429  | .9077 27882  | .3505 44301  |
| .8147  | .7275 19805  | .6860 86680  | .9078 62941  | .3506 35080  |
| .8148  | .7275 88410  | .6860 13925  | .9079 98009  | .3507 25873  |
| .8149  | .7276 57008  | .6859 41163  | .9081 33086  | .3508 16660  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.8150 | 0.7277 25599 | 0.6858 68393 | 0.9082 68172 | 1.3500 07500 |
| .8151  | .7277 94182  | .6857 95617  | .9084 03268  | .3500 93335  |
| .8152  | .7278 62758  | .6857 22835  | .9085 38372  | .3510 39181  |
| .8153  | .7279 31326  | .6856 50045  | .9086 73406  | .3511 80041  |
| .8154  | .7279 99888  | .6855 77248  | .9088 08608  | .3512 70915  |
| 0.8155 | 0.7280 68442 | 0.6855 04445 | 0.9089 43740 | 1.3513 61803 |
| .8156  | .7281 36989  | .6854 31635  | .9090 78881  | .3514 52704  |
| .8157  | .7282 05528  | .6853 58818  | .9092 14030  | .3515 43619  |
| .8158  | .7282 74060  | .6852 85994  | .9093 49189  | .3516 34547  |
| .8159  | .7283 42585  | .6852 13163  | .9094 84357  | .3517 25408  |
| 0.8160 | 0.7284 11103 | 0.6851 40325 | 0.9096 19534 | 1.3518 16444 |
| .8161  | .7284 79613  | .6850 67481  | .9097 54721  | .3519 07412  |
| .8162  | .7285 48117  | .6849 94629  | .9098 89916  | .3519 98395  |
| .8163  | .7286 16612  | .6849 21771  | .9100 25120  | .3520 89390  |
| .8164  | .7286 85101  | .6848 48906  | .9101 60334  | .3521 80400  |
| 0.8165 | 0.7287 53582 | 0.6847 76034 | 0.9102 95556 | 1.3522 71422 |
| .8166  | .7288 22056  | .6847 03155  | .9104 30788  | .3523 62459  |
| .8167  | .7288 90523  | .6846 30269  | .9105 66029  | .3524 53509  |
| .8168  | .7289 58982  | .6845 57377  | .9107 01279  | .3525 44572  |
| .8169  | .7290 27434  | .6844 84478  | .9108 36538  | .3526 35649  |
| 0.8170 | 0.7290 95879 | 0.6844 11571 | 0.9109 71806 | 1.3527 26739 |
| .8171  | .7291 64317  | .6843 38658  | .9111 07083  | .3528 17843  |
| .8172  | .7292 32747  | .6842 65739  | .9112 42369  | .3529 08961  |
| .8173  | .7293 01170  | .6841 92812  | .9113 77665  | .3530 00092  |
| .8174  | .7293 69585  | .6841 19878  | .9115 12969  | .3530 91236  |
| 0.8175 | 0.7294 37994 | 0.6840 46938 | 0.9116 48283 | 1.3531 82394 |
| .8176  | .7295 06395  | .6839 73991  | .9117 83606  | .3532 73566  |
| .8177  | .7295 74788  | .6839 01037  | .9119 18938  | .3533 64751  |
| .8178  | .7296 43175  | .6838 28076  | .9120 54279  | .3534 55950  |
| .8179  | .7297 11554  | .6837 55108  | .9121 89629  | .3535 47162  |
| 0.8180 | 0.7297 79926 | 0.6836 82134 | 0.9123 24988 | 1.3536 38388 |
| .8181  | .7298 48290  | .6836 09152  | .9124 60357  | .3537 29627  |
| .8182  | .7299 16648  | .6835 36164  | .9125 95734  | .3538 20880  |
| .8183  | .7299 84998  | .6834 63169  | .9127 31121  | .3539 12146  |
| .8184  | .7300 53340  | .6833 90167  | .9128 66517  | .3540 03426  |
| 0.8185 | 0.7301 21676 | 0.6833 17158 | 0.9130 01922 | 1.3540 94719 |
| .8186  | .7301 90004  | .6832 44143  | .9131 37336  | .3541 86026  |
| .8187  | .7302 58325  | .6831 71120  | .9132 72759  | .3542 77347  |
| .8188  | .7303 26638  | .6830 98091  | .9134 08191  | .3543 68681  |
| .8189  | .7303 94944  | .6830 25055  | .9135 43632  | .3544 60028  |
| 0.8190 | 0.7304 63243 | 0.6829 52012 | 0.9136 79083 | 1.3545 51390 |
| .8191  | .7305 31535  | .6828 78962  | .9138 14543  | .3546 42764  |
| .8192  | .7305 99819  | .6828 05906  | .9139 50012  | .3547 34152  |
| .8193  | .7306 68096  | .6827 32842  | .9140 85490  | .3548 25554  |
| .8194  | .7307 36365  | .6826 59772  | .9142 20977  | .3549 16970  |
| 0.8195 | 0.7308 04628 | 0.6825 86695 | 0.9143 56473 | 1.3550 08398 |
| .8196  | .7308 72883  | .6825 13611  | .9144 91978  | .3550 99841  |
| .8197  | .7309 41130  | .6824 40520  | .9146 27493  | .3551 91297  |
| .8198  | .7310 09371  | .6823 67423  | .9147 63017  | .3552 82766  |
| .8199  | .7310 77604  | .6822 94318  | .9148 98550  | .3553 74249  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.8200 | 0.7311 45830 | 0.6822 21207 | 0.9150 34092 | 1.3554 65746 |
| .8201  | .7312 14048  | .6821 48089  | .9151 69643  | .3555 57256  |
| .8202  | .7312 82259  | .6820 74964  | .9153 05203  | .3556 48720  |
| .8203  | .7313 50463  | .6820 01833  | .9154 40772  | .3557 40317  |
| .8204  | .7314 18660  | .6819 28694  | .9155 76351  | .3558 31862  |
| 0.8205 | 0.7314 86849 | 0.6818 55549 | 0.9157 11939 | 1.3559 23433 |
| .8206  | .7315 55031  | .6817 82397  | .9158 47536  | .3560 15010  |
| .8207  | .7316 23205  | .6817 09238  | .9159 83142  | .3561 06602  |
| .8208  | .7316 91373  | .6816 36072  | .9161 18757  | .3561 98207  |
| .8209  | .7317 59533  | .6815 62900  | .9162 54381  | .3562 89826  |
| 0.8210 | 0.7318 27685 | 0.6814 89720 | 0.9163 90015 | 1.3563 81458 |
| .8211  | .7318 95831  | .6814 16534  | .9165 25658  | .3564 73104  |
| .8212  | .7319 63969  | .6813 43341  | .9166 61310  | .3565 64763  |
| .8213  | .7320 32099  | .6812 70141  | .9167 96971  | .3566 56426  |
| .8214  | .7321 00223  | .6811 96935  | .9169 32641  | .3567 48123  |
| 0.8215 | 0.7321 68339 | 0.6811 23721 | 0.9170 68320 | 1.3568 39823 |
| .8216  | .7322 36447  | .6810 50501  | .9172 04009  | .3569 31536  |
| .8217  | .7323 04549  | .6809 77274  | .9173 39707  | .3570 23263  |
| .8218  | .7323 72643  | .6809 04040  | .9174 75414  | .3571 15004  |
| .8219  | .7324 40730  | .6808 30800  | .9176 11130  | .3572 06758  |
| 0.8220 | 0.7325 08809 | 0.6807 57552 | 0.9177 46855 | 1.3572 98526 |
| .8221  | .7325 76881  | .6806 84298  | .9178 82589  | .3573 90308  |
| .8222  | .7326 44946  | .6806 11037  | .9180 18333  | .3574 82103  |
| .8223  | .7327 13003  | .6805 37769  | .9181 54086  | .3575 73911  |
| .8224  | .7327 81053  | .6804 64494  | .9182 89848  | .3576 65734  |
| 0.8225 | 0.7328 49096 | 0.6803 91213 | 0.9184 25619 | 1.3577 57569 |
| .8226  | .7329 17132  | .6803 17924  | .9185 61399  | .3578 49419  |
| .8227  | .7329 85160  | .6802 44629  | .9186 97189  | .3579 41282  |
| .8228  | .7330 53181  | .6801 71327  | .9188 32987  | .3580 33158  |
| .8229  | .7331 21194  | .6800 98019  | .9189 68795  | .3581 25048  |
| 0.8230 | 0.7331 89200 | 0.6800 24703 | 0.9191 04613 | 1.3582 16852 |
| .8231  | .7332 57199  | .6799 51381  | .9192 40439  | .3583 08669  |
| .8232  | .7333 25190  | .6798 78052  | .9193 76274  | .3584 00500  |
| .8233  | .7333 93175  | .6798 04716  | .9195 12119  | .3584 92745  |
| .8234  | .7334 61151  | .6797 31373  | .9196 47973  | .3585 84703  |
| 0.8235 | 0.7335 29121 | 0.6796 58024 | 0.9197 83836 | 1.3586 76674 |
| .8236  | .7335 97083  | .6795 84667  | .9199 19708  | .3587 68659  |
| .8237  | .7336 65038  | .6795 11304  | .9200 55590  | .3588 60658  |
| .8238  | .7337 32985  | .6794 37934  | .9201 91480  | .3589 52670  |
| .8239  | .7338 00925  | .6793 64557  | .9203 27380  | .3590 44696  |
| 0.8240 | 0.7338 68858 | 0.6792 91174 | 0.9204 63289 | 1.3591 36736 |
| .8241  | .7339 36784  | .6792 17784  | .9205 99208  | .3592 28789  |
| .8242  | .7340 04702  | .6791 44387  | .9207 35135  | .3593 20856  |
| .8243  | .7340 72612  | .6790 70983  | .9208 71072  | .3594 12936  |
| .8244  | .7341 40516  | .6789 97572  | .9210 07018  | .3595 05030  |
| 0.8245 | 0.7342 08412 | 0.6789 24155 | 0.9211 42973 | 1.3595 97137 |
| .8246  | .7342 76301  | .6788 50730  | .9212 78937  | .3596 89259  |
| .8247  | .7343 44182  | .6787 77299  | .9214 14911  | .3597 81393  |
| .8248  | .7344 12056  | .6787 03862  | .9215 50893  | .3598 73542  |
| .8249  | .7344 79923  | .6786 30417  | .9216 86885  | .3599 65703  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.8250 | 0.7345 47782 | 0.6785 56966 | 0.9218 22880 | 1.3600 57879 |
| .8251  | .7346 15634  | .6784 83507  | .9219 58897  | .3601 50068  |
| .8252  | .7346 83479  | .6784 10042  | .9220 94916  | .3602 42271  |
| .8253  | .7347 51516  | .6783 36571  | .9222 30945  | .3603 34487  |
| .8254  | .7348 19146  | .6782 63092  | .9223 66983  | .3604 26717  |
| 0.8255 | 0.7348 86969 | 0.6781 89607 | 0.9225 03031 | 1.3605 18900 |
| .8256  | .7349 54784  | .6781 16115  | .9226 39087  | .3606 11217  |
| .8257  | .7350 22592  | .6780 42616  | .9227 75153  | .3607 03488  |
| .8258  | .7350 90393  | .6779 69110  | .9229 11228  | .3607 95773  |
| .8259  | .7351 58186  | .6778 95598  | .9230 47312  | .3608 88070  |
| 0.8260 | 0.7352 25972 | 0.6778 22079 | 0.9231 83405 | 1.3609 80382 |
| .8261  | .7352 93750  | .6777 48553  | .9233 19508  | .3610 72707  |
| .8262  | .7353 61522  | .6776 75020  | .9234 55620  | .3611 65046  |
| .8263  | .7354 29285  | .6776 01480  | .9235 91741  | .3612 57398  |
| .8264  | .7354 97042  | .6775 27934  | .9237 27871  | .3613 49764  |
| 0.8265 | 0.7355 64791 | 0.6774 54381 | 0.9238 64011 | 1.3614 42144 |
| .8266  | .7356 32533  | .6773 80821  | .9240 00160  | .3615 34537  |
| .8267  | .7357 00267  | .6773 07254  | .9241 36318  | .3616 26944  |
| .8268  | .7357 67994  | .6772 33681  | .9242 72485  | .3617 19364  |
| .8269  | .7358 35714  | .6771 60101  | .9244 08662  | .3618 11798  |
| 0.8270 | 0.7359 03426 | 0.6770 86514 | 0.9245 44848 | 1.3619 04246 |
| .8271  | .7359 71131  | .6770 12920  | .9246 81043  | .3619 96707  |
| .8272  | .7360 38829  | .6769 39320  | .9248 17247  | .3620 89182  |
| .8273  | .7361 06519  | .6768 65712  | .9249 53461  | .3621 81671  |
| .8274  | .7361 74202  | .6767 92098  | .9250 89683  | .3622 74173  |
| 0.8275 | 0.7362 41877 | 0.6767 18478 | 0.9252 25915 | 1.3623 66689 |
| .8276  | .7363 09546  | .6766 44850  | .9253 62157  | .3624 59218  |
| .8277  | .7363 77206  | .6765 71216  | .9254 98407  | .3625 51761  |
| .8278  | .7364 44860  | .6764 97575  | .9256 34667  | .3626 44318  |
| .8279  | .7365 12506  | .6764 23927  | .9257 70936  | .3627 36888  |
| 0.8280 | 0.7365 80145 | 0.6763 50272 | 0.9259 07214 | 1.3628 29472 |
| .8281  | .7366 47776  | .6762 76611  | .9260 43502  | .3629 22070  |
| .8282  | .7367 15400  | .6762 02943  | .9261 79799  | .3630 14681  |
| .8283  | .7367 83017  | .6761 29268  | .9263 16105  | .3631 07305  |
| .8284  | .7368 50626  | .6760 55586  | .9264 52420  | .3631 99944  |
| 0.8285 | 0.7369 18228 | 0.6759 81897 | 0.9265 88745 | 1.3632 92596 |
| .8286  | .7369 85822  | .6759 08202  | .9267 25079  | .3633 85262  |
| .8287  | .7370 53409  | .6758 34500  | .9268 61422  | .3634 77941  |
| .8288  | .7371 20989  | .6757 60792  | .9269 97774  | .3635 70634  |
| .8289  | .7371 88561  | .6756 87076  | .9271 34136  | .3636 63341  |
| 0.8290 | 0.7372 56126 | 0.6756 13354 | 0.9272 70507 | 1.3637 56061 |
| .8291  | .7373 23684  | .6755 39625  | .9274 06887  | .3638 48795  |
| .8292  | .7373 91234  | .6754 65889  | .9275 43277  | .3639 41542  |
| .8293  | .7374 58777  | .6753 92147  | .9276 79676  | .3640 34303  |
| .8294  | .7375 26313  | .6753 18397  | .9278 16084  | .3641 27078  |
| 0.8295 | 0.7375 93841 | 0.6752 44641 | 0.9279 52501 | 1.3642 19866 |
| .8296  | .7376 61362  | .6751 70879  | .9280 88928  | .3643 12669  |
| .8297  | .7377 28875  | .6750 97109  | .9282 25364  | .3644 05484  |
| .8298  | .7377 96381  | .6750 23333  | .9283 61809  | .3644 98314  |
| .8299  | .7378 63880  | .6749 49550  | .9284 98263  | .3645 91157  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.8300 | 0.7379 31371 | 0.6748 75760 | 0.9286 34727 | 1.3646 84013 |
| .8301  | .7379 98855  | .6748 01964  | .9287 71200  | .3647 76884  |
| .8302  | .7380 66332  | .6747 28160  | .9289 07682  | .3648 69768  |
| .8303  | .7381 33801  | .6746 54350  | .9290 44174  | .3649 62665  |
| .8304  | .7382 01262  | .6745 80534  | .9291 80675  | .3650 55576  |
| 0.8305 | 0.7382 68717 | 0.6745 06710 | 0.9293 17185 | 1.3651 48501 |
| .8306  | .7383 36164  | .6744 32880  | .9294 53705  | .3652 41440  |
| .8307  | .7384 03603  | .6743 59043  | .9295 90233  | .3653 34392  |
| .8308  | .7384 71036  | .6742 85199  | .9297 26771  | .3654 27358  |
| .8309  | .7385 38460  | .6742 11349  | .9298 63319  | .3655 20337  |
| 0.8310 | 0.7386 05878 | 0.6741 37491 | 0.9299 99876 | 1.3656 13331 |
| .8311  | .7386 73288  | .6740 63627  | .9301 36442  | .3657 06337  |
| .8312  | .7387 40691  | .6739 89757  | .9302 73017  | .3657 99358  |
| .8313  | .7388 08086  | .6739 15879  | .9304 09602  | .3658 92392  |
| .8314  | .7388 75474  | .6738 41995  | .9305 46195  | .3659 85440  |
| 0.8315 | 0.7389 42854 | 0.6737 68104 | 0.9306 82798 | 1.3660 78501 |
| .8316  | .7390 10227  | .6736 94207  | .9308 19411  | .3661 71576  |
| .8317  | .7390 77593  | .6736 20302  | .9309 56033  | .3662 64665  |
| .8318  | .7391 44951  | .6735 46391  | .9310 92664  | .3663 57767  |
| .8319  | .7392 12302  | .6734 72473  | .9312 29304  | .3664 50884  |
| 0.8320 | 0.7392 79646 | 0.6733 98549 | 0.9313 65954 | 1.3665 44013 |
| .8321  | .7393 46982  | .6733 24617  | .9315 02613  | .3665 37157  |
| .8322  | .7394 14311  | .6732 50679  | .9316 39282  | .3667 30314  |
| .8323  | .7394 81632  | .6731 76734  | .9317 75959  | .3668 23485  |
| .8324  | .7395 48946  | .6731 02783  | .9319 12646  | .3669 16669  |
| 0.8325 | 0.7396 16253 | 0.6730 28825 | 0.9320 49343 | 1.3670 09867 |
| .8326  | .7396 83552  | .6729 54860  | .9321 86048  | .3671 03079  |
| .8327  | .7397 50844  | .6728 80888  | .9323 22763  | .3671 96304  |
| .8328  | .7398 18128  | .6728 06909  | .9324 59487  | .3672 89543  |
| .8329  | .7398 85405  | .6727 32924  | .9325 96221  | .3673 82796  |
| 0.8330 | 0.7399 52675 | 0.6726 58932 | 0.9327 32964 | 1.3674 76063 |
| .8331  | .7400 19937  | .6725 84934  | .9328 69716  | .3675 69343  |
| .8332  | .7400 87192  | .6725 10928  | .9330 06478  | .3676 62637  |
| .8333  | .7401 54439  | .6724 36916  | .9331 43249  | .3677 55944  |
| .8334  | .7402 21679  | .6723 62897  | .9332 80029  | .3678 49265  |
| 0.8335 | 0.7402 88912 | 0.6722 88872 | 0.9334 16819 | 1.3679 42600 |
| .8336  | .7403 56137  | .6722 14840  | .9335 53618  | .3680 35949  |
| .8337  | .7404 23355  | .6721 40801  | .9336 90426  | .3681 29311  |
| .8338  | .7404 90565  | .6720 66755  | .9338 27243  | .3682 22687  |
| .8339  | .7405 57768  | .6719 92703  | .9339 64070  | .3683 16076  |
| 0.8340 | 0.7406 24964 | 0.6719 18643 | 0.9341 00907 | 1.3684 09480 |
| .8341  | .7406 92152  | .6718 44578  | .9342 37752  | .3685 02897  |
| .8342  | .7407 59332  | .6717 70505  | .9343 74607  | .3685 96327  |
| .8343  | .7408 26506  | .6716 96426  | .9345 11472  | .3686 89771  |
| .8344  | .7408 93672  | .6716 22340  | .9346 48345  | .3687 83229  |
| 0.8345 | 0.7409 60830 | 0.6715 48247 | 0.9347 85228 | 1.3688 76701 |
| .8346  | .7410 27981  | .6714 74148  | .9349 22121  | .3689 70186  |
| .8347  | .7410 95125  | .6714 00041  | .9350 59022  | .3690 63686  |
| .8348  | .7411 62261  | .6713 25929  | .9351 95933  | .3691 57198  |
| .8349  | .7412 29390  | .6712 51809  | .9353 32854  | .3692 50725  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.8350 | 0.7412 96512 | 0.6711 77683 | 0.9354 69783 | 1.5693 44265 |
| .8351  | .7413 63626  | .6711 03550  | .9356 06723  | .3694 37819  |
| .8352  | .7414 30732  | .6710 29410  | .9357 43671  | .3695 31386  |
| .8353  | .7414 97832  | .6709 55264  | .9358 80629  | .3696 24967  |
| .8354  | .7415 64923  | .6708 81110  | .9360 17596  | .3697 18562  |
| 0.8355 | 0.7416 32008 | 0.6708 06951 | 0.9361 54673 | 1.3698 12171 |
| .8356  | .7416 99085  | .6707 32784  | .9362 91558  | .3699 05793  |
| .8357  | .7417 66154  | .6706 58611  | .9364 28554  | .3699 99429  |
| .8358  | .7418 33217  | .6705 84431  | .9365 65558  | .3700 93079  |
| .8359  | .7419 00271  | .6705 10244  | .9367 02572  | .3701 86742  |
| 0.8360 | 0.7419 67319 | 0.6704 36051 | 0.9368 39596 | 1.3702 80419 |
| .8361  | .7420 34359  | .6703 61851  | .9369 76628  | .3703 74110  |
| .8362  | .7421 01391  | .6702 87644  | .9371 13670  | .3704 67815  |
| .8363  | .7421 68416  | .6702 13430  | .9372 50722  | .3705 61533  |
| .8364  | .7422 35434  | .6701 39210  | .9373 87783  | .3706 55265  |
| 0.8365 | 0.7423 02444 | 0.6700 64983 | 0.9375 24853 | 1.3707 49011 |
| .8366  | .7423 69447  | .6699 90750  | .9376 61933  | .3708 42770  |
| .8367  | .7424 36442  | .6699 16509  | .9377 99022  | .3708 36543  |
| .8368  | .7425 03430  | .6698 42262  | .9379 36120  | .3710 30330  |
| .8369  | .7425 70411  | .6697 68009  | .9380 73228  | .3711 24130  |
| 0.8370 | 0.7426 37384 | 0.6696 93748 | 0.9382 10345 | 1.3712 17944 |
| .8371  | .7427 04349  | .6696 19481  | .9383 47471  | .3713 11772  |
| .8372  | .7427 71308  | .6695 45207  | .9384 84607  | .3714 05614  |
| .8373  | .7428 38258  | .6694 70927  | .9386 21752  | .3714 99469  |
| .8374  | .7429 05202  | .6693 96640  | .9387 58907  | .3715 93338  |
| 0.8375 | 0.7429 72138 | 0.6693 22346 | 0.9388 96071 | 1.3716 87221 |
| .8376  | .7430 39066  | .6692 48045  | .9390 33244  | .3717 81117  |
| .8377  | .7431 05987  | .6691 73738  | .9391 70427  | .3718 75028  |
| .8378  | .7431 72901  | .6690 99424  | .9393 07619  | .3719 68952  |
| .8379  | .7432 39807  | .6690 25103  | .9394 44821  | .3720 62889  |
| 0.8380 | 0.7433 06706 | 0.6689 50776 | 0.9395 82032 | 1.3721 56840 |
| .8381  | .7433 73597  | .6688 76442  | .9397 19252  | .3722 50806  |
| .8382  | .7434 40481  | .6688 02101  | .9398 56482  | .3723 44784  |
| .8383  | .7435 07358  | .6687 27754  | .9399 93721  | .3724 38777  |
| .8384  | .7435 74227  | .6686 53400  | .9401 30970  | .3725 32783  |
| 0.8385 | 0.7436 41088 | 0.6685 79039 | 0.9402 68223 | 1.3726 26803 |
| .8386  | .7437 07943  | .6685 04672  | .9404 05495  | .3727 20837  |
| .8387  | .7437 74789  | .6684 30298  | .9405 42772  | .3728 14884  |
| .8388  | .7438 41629  | .6683 55917  | .9406 80058  | .3729 08945  |
| .8389  | .7439 08461  | .6682 81529  | .9408 17354  | .3730 03020  |
| 0.8390 | 0.7439 75285 | 0.6682 07135 | 0.9409 54659 | 1.3730 97109 |
| .8391  | .7440 42102  | .6681 32734  | .9410 91973  | .3731 91211  |
| .8392  | .7441 08911  | .6680 58327  | .9412 29297  | .3732 85327  |
| .8393  | .7441 75714  | .6679 83912  | .9413 66630  | .3733 79457  |
| .8394  | .7442 42508  | .6679 09492  | .9415 03973  | .3734 73600  |
| 0.8395 | 0.7443 09295 | 0.6678 35064 | 0.9416 41325 | 1.3735 67758 |
| .8396  | .7443 76075  | .6677 60630  | .9417 78687  | .3736 61929  |
| .8397  | .7444 42848  | .6676 86189  | .9419 16057  | .3737 56113  |
| .8398  | .7445 09613  | .6676 11741  | .9420 53438  | .3738 50312  |
| .8399  | .7445 76370  | .6675 37287  | .9421 90828  | .3739 44524  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.8400 | 0.7446 43120 | 0.6674 62826 | 0.9423 28227 | 1.3740 38750 |
| .8401  | .7447 09863  | .6673 88358  | .9424 65635  | .3741 32990  |
| .8402  | .7447 76598  | .6673 13884  | .9426 03053  | .3742 27243  |
| .8403  | .7448 43325  | .6672 39403  | .9427 40481  | .3743 21510  |
| .8404  | .7449 10046  | .6671 64915  | .9428 77918  | .3744 15791  |
| 0.8405 | 0.7449 76758 | 0.6670 90421 | 0.9430 15364 | 1.3745 10086 |
| .8406  | .7450 43464  | .6670 15920  | .9431 52820  | .3746 04394  |
| .8407  | .7451 10161  | .6669 41412  | .9432 90285  | .3746 98717  |
| .8408  | .7451 76852  | .6668 66898  | .9434 27759  | .3747 93052  |
| .8409  | .7452 43535  | .6667 92377  | .9435 65243  | .3748 87402  |
| 0.8410 | 0.7453 10210 | 0.6667 17849 | 0.9437 02737 | 1.3749 81766 |
| .8411  | .7453 76878  | .6666 43315  | .9438 40240  | .3750 76143  |
| .8412  | .7454 43539  | .6665 68774  | .9439 77752  | .3751 70534  |
| .8413  | .7455 10192  | .6664 94226  | .9441 15274  | .3752 64938  |
| .8414  | .7455 76838  | .6664 19672  | .9442 52805  | .3753 59357  |
| 0.8415 | 0.7456 43476 | 0.6663 45111 | 0.9443 90346 | 1.3754 53789 |
| .8416  | .7457 10107  | .6662 70543  | .9445 27896  | .3755 48235  |
| .8417  | .7457 76730  | .6661 95969  | .9446 65455  | .3756 42694  |
| .8418  | .7458 43346  | .6661 21388  | .9448 03024  | .3757 37168  |
| .8419  | .7459 09954  | .6660 46800  | .9449 40603  | .3758 31655  |
| 0.8420 | 0.7459 76555 | 0.6659 72206 | 0.9450 78191 | 1.3759 26156 |
| .8421  | .7460 43149  | .6658 97605  | .9452 15788  | .3760 20671  |
| .8422  | .7461 09735  | .6658 22997  | .9453 53395  | .3761 15199  |
| .8423  | .7461 76314  | .6657 48383  | .9454 91011  | .3762 09741  |
| .8424  | .7462 42885  | .6656 73762  | .9456 28637  | .3763 04297  |
| 0.8425 | 0.7463 09448 | 0.6655 99134 | 0.9457 66272 | 1.3763 98867 |
| .8426  | .7463 76004  | .6655 24500  | .9459 03917  | .3764 93451  |
| .8427  | .7464 42553  | .6654 49859  | .9460 41571  | .3765 88048  |
| .8428  | .7465 09094  | .6653 75211  | .9461 79234  | .3766 82659  |
| .8429  | .7465 75628  | .6653 00557  | .9463 16907  | .3767 77284  |
| 0.8430 | 0.7466 42155 | 0.6652 25896 | 0.9464 54590 | 1.3768 71922 |
| .8431  | .7467 08673  | .6651 51229  | .9465 92282  | .3769 66575  |
| .8432  | .7467 75185  | .6650 76555  | .9467 29983  | .3770 61241  |
| .8433  | .7468 41689  | .6650 01874  | .9468 67694  | .3771 55921  |
| .8434  | .7469 08185  | .6649 27186  | .9470 05414  | .3772 50614  |
| 0.8435 | 0.7469 74674 | 0.6648 52492 | 0.9471 43144 | 1.3773 45322 |
| .8436  | .7470 41156  | .6647 77791  | .9472 80883  | .3774 40043  |
| .8437  | .7471 07630  | .6647 03084  | .9474 18632  | .3775 34778  |
| .8438  | .7471 74096  | .6646 28370  | .9475 56390  | .3776 29527  |
| .8439  | .7472 40555  | .6645 53649  | .9476 94158  | .3777 24289  |
| 0.8440 | 0.7473 07007 | 0.6644 78922 | 0.9478 31935 | 1.3778 19065 |
| .8441  | .7473 73451  | .6644 04188  | .9479 69722  | .3779 13855  |
| .8442  | .7474 39888  | .6643 29447  | .9481 07518  | .3780 08659  |
| .8443  | .7475 06317  | .6642 54700  | .9482 45323  | .3781 03477  |
| .8444  | .7475 72739  | .6641 79946  | .9483 83138  | .3781 98308  |
| 0.8445 | 0.7476 39153 | 0.6641 05185 | 0.9485 20963 | 1.3782 93154 |
| .8446  | .7477 05560  | .6640 30418  | .9486 58797  | .3783 88013  |
| .8447  | .7477 71959  | .6639 55644  | .9487 96641  | .3784 82885  |
| .8448  | .7478 38351  | .6638 80863  | .9489 34494  | .3785 77772  |
| .8449  | .7479 04735  | .6638 06076  | .9490 72356  | .3786 72672  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.8450 | 0.7479 71112 | 0.6637 31282 | 0.9492 10228 | 1.3787 67586 |
| .8451  | .7480 37482  | .6636 56482  | .9493 48110  | .3788 02514  |
| .8452  | .7481 03843  | .6635 81675  | .9494 86001  | .3789 57456  |
| .8453  | .7481 70198  | .6635 06861  | .9496 23901  | .3790 52412  |
| .8454  | .7482 36545  | .6634 32041  | .9497 61811  | .3791 47381  |
| 0.8455 | 0.7483 02884 | 0.6633 57214 | 0.9498 99731 | 1.3792 42364 |
| .8456  | .7483 69216  | .6632 82380  | .9500 37680  | .3793 37361  |
| .8457  | .7484 35541  | .6632 07540  | .9501 75598  | .3794 32371  |
| .8458  | .7485 01858  | .6631 32693  | .9503 13546  | .3795 27396  |
| .8459  | .7485 68167  | .6630 57840  | .9504 51504  | .3796 22434  |
| 0.8460 | 0.7486 34469 | 0.6629 82980 | 0.9505 89471 | 1.3797 17486 |
| .8461  | .7487 00764  | .6629 08113  | .9507 27447  | .3798 12552  |
| .8462  | .7487 67051  | .6628 33239  | .9508 65433  | .3799 07632  |
| .8463  | .7488 33331  | .6627 58359  | .9510 03429  | .3800 02725  |
| .8464  | .7488 99603  | .6626 83473  | .9511 41434  | .3800 97832  |
| 0.8465 | 0.7489 65867 | 0.6626 08580 | 0.9512 79448 | 1.3801 92953 |
| .8466  | .7490 32124  | .6625 33680  | .9514 17472  | .3802 88088  |
| .8467  | .7490 98374  | .6624 58773  | .9515 55506  | .3803 83237  |
| .8468  | .7491 64616  | .6623 83860  | .9516 93549  | .3804 78399  |
| .8469  | .7492 30851  | .6623 08940  | .9518 31601  | .3805 73576  |
| 0.8470 | 0.7492 97078 | 0.6622 34014 | 0.9519 69664 | 1.3806 68766 |
| .8471  | .7493 63298  | .6621 59081  | .9521 07735  | .3807 63970  |
| .8472  | .7494 29510  | .6620 84141  | .9522 45816  | .3808 59187  |
| .8473  | .7494 95714  | .6620 09195  | .9523 83907  | .3809 54419  |
| .8474  | .7495 61912  | .6619 34242  | .9525 22007  | .3810 49664  |
| 0.8475 | 0.7496 28101 | 0.6618 59282 | 0.9526 60117 | 1.3811 44923 |
| .8476  | .7496 94283  | .6617 84316  | .9527 98236  | .3812 40196  |
| .8477  | .7497 60458  | .6617 09344  | .9529 36365  | .3813 35483  |
| .8478  | .7498 26625  | .6616 34364  | .9530 74503  | .3814 30783  |
| .8479  | .7498 92785  | .6615 59378  | .9532 12651  | .3815 26098  |
| 0.8480 | 0.7499 58937 | 0.6614 84386 | 0.9533 50809 | 1.3816 21426 |
| .8481  | .7500 25082  | .6614 09387  | .9534 88976  | .3817 16768  |
| .8482  | .7500 91219  | .6613 34381  | .9536 27152  | .3818 12124  |
| .8483  | .7501 57349  | .6612 59368  | .9537 65338  | .3819 07493  |
| .8484  | .7502 23471  | .6611 84349  | .9539 03533  | .3820 02877  |
| 0.8485 | 0.7502 89586 | 0.6611 09324 | 0.9540 41739 | 1.3820 98274 |
| .8486  | .7503 55693  | .6610 34291  | .9541 79953  | .3821 93685  |
| .8487  | .7504 21792  | .6609 59252  | .9543 18177  | .3822 89110  |
| .8488  | .7504 87885  | .6608 84207  | .9544 56411  | .3823 84549  |
| .8489  | .7505 53969  | .6608 09155  | .9545 94654  | .3824 80001  |
| 0.8490 | 0.7506 20046 | 0.6607 34096 | 0.9547 32907 | 1.3825 75468 |
| .8491  | .7506 86116  | .6606 59031  | .9548 71169  | .3826 70948  |
| .8492  | .7507 52178  | .6605 83959  | .9550 09441  | .3827 66442  |
| .8493  | .7508 18233  | .6605 08880  | .9551 47723  | .3828 61950  |
| .8494  | .7508 84280  | .6604 33795  | .9552 86014  | .3829 57471  |
| 0.8495 | 0.7509 50320 | 0.6603 58704 | 0.9554 24314 | 1.3830 53007 |
| .8496  | .7510 16352  | .6602 83605  | .9555 62624  | .3831 48556  |
| .8497  | .7510 82376  | .6602 08500  | .9557 00944  | .3832 44119  |
| .8498  | .7511 48393  | .6601 33389  | .9558 39273  | .3833 39696  |
| .8499  | .7512 14403  | .6600 58271  | .9559 77612  | .3834 35287  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.8500 | 0.7512 80405 | 0.6599 53146 | 0.9561 15960 | 1.3835 30892 |
| .8501  | .7513 46400  | .6599 08015  | .9562 54318  | .3836 26510  |
| .8502  | .7514 12387  | .6598 32877  | .9563 92685  | .3837 22143  |
| .8503  | .7514 78366  | .6597 57732  | .9565 31062  | .3838 17789  |
| .8504  | .7515 44338  | .6596 82581  | .9566 69449  | .3839 13449  |
| 0.8505 | 0.7516 10303 | 0.6596 07423 | 0.9568 07845 | 1.3840 09123 |
| .8506  | .7516 76260  | .6595 32259  | .9569 46251  | .3841 04811  |
| .8507  | .7517 42209  | .6594 57088  | .9570 84666  | .3842 00512  |
| .8508  | .7518 08151  | .6593 81910  | .9572 23091  | .3842 96228  |
| .8509  | .7518 74086  | .6593 06726  | .9573 61525  | .3843 91957  |
| 0.8510 | 0.7519 40013 | 0.6592 31536 | 0.9574 99969 | 1.3844 87700 |
| .8511  | .7520 05932  | .6591 56338  | .9576 38423  | .3845 83457  |
| .8512  | .7520 71844  | .6590 81134  | .9577 76886  | .3846 79228  |
| .8513  | .7521 37748  | .6590 05924  | .9579 15359  | .3847 75012  |
| .8514  | .7522 03645  | .6589 30707  | .9580 53841  | .3848 70811  |
| 0.8515 | 0.7522 69534 | 0.6588 55483 | 0.9581 92333 | 1.3849 66623 |
| .8516  | .7523 35416  | .6587 80253  | .9583 30834  | .3850 62449  |
| .8517  | .7524 01290  | .6587 05016  | .9584 69345  | .3851 58289  |
| .8518  | .7524 67157  | .6586 29773  | .9586 07866  | .3852 54143  |
| .8519  | .7525 33016  | .6585 54523  | .9587 46396  | .3853 50011  |
| 0.8520 | 0.7525 98868 | 0.6584 79266 | 0.9588 84936 | 1.3854 45892 |
| .8521  | .7526 64712  | .6584 04003  | .9590 23485  | .3855 41788  |
| .8522  | .7527 30549  | .6583 28733  | .9591 62044  | .3856 37697  |
| .8523  | .7527 96378  | .6582 53457  | .9593 00613  | .3857 33620  |
| .8524  | .7528 62199  | .6581 78174  | .9594 39191  | .3858 29557  |
| 0.8525 | 0.7529 28014 | 0.6581 02884 | 0.9595 77779 | 1.3859 25508 |
| .8526  | .7529 93820  | .6580 27588  | .9597 16376  | .3860 21473  |
| .8527  | .7530 59619  | .6579 52286  | .9598 54983  | .3861 17451  |
| .8528  | .7531 25411  | .6578 76976  | .9599 93600  | .3862 13444  |
| .8529  | .7531 91194  | .6578 01661  | .9601 32226  | .3863 09450  |
| 0.8530 | 0.7532 56971 | 0.6577 26338 | 0.9602 70861 | 1.3864 05470 |
| .8531  | .7533 22740  | .6576 51009  | .9604 09507  | .3865 01504  |
| .8532  | .7533 88501  | .6575 75674  | .9605 48162  | .3865 97552  |
| .8533  | .7534 54255  | .6575 00331  | .9606 86826  | .3866 93614  |
| .8534  | .7535 20001  | .6574 24983  | .9608 25500  | .3867 89689  |
| 0.8535 | 0.7535 85740 | 0.6573 49627 | 0.9609 64184 | 1.3868 85779 |
| .8536  | .7536 51471  | .6572 74266  | .9611 02878  | .3869 81882  |
| .8537  | .7537 17195  | .6571 98897  | .9612 41581  | .3870 77999  |
| .8538  | .7537 82911  | .6571 23522  | .9613 80293  | .3871 74130  |
| .8539  | .7538 48619  | .6570 48141  | .9615 19015  | .3872 70275  |
| 0.8540 | 0.7539 14320 | 0.6569 72752 | 0.9616 57747 | 1.3873 66434 |
| .8541  | .7539 80014  | .6568 97358  | .9617 96489  | .3874 62607  |
| .8542  | .7540 45700  | .6568 21956  | .9619 35240  | .3875 58794  |
| .8543  | .7541 11378  | .6567 46549  | .9620 74000  | .3876 54994  |
| .8544  | .7541 77049  | .6566 71134  | .9622 12771  | .3877 51208  |
| 0.8545 | 0.7542 42713 | 0.6565 95713 | 0.9623 51551 | 1.3878 47437 |
| .8546  | .7543 08368  | .6565 20286  | .9624 90340  | .3879 43679  |
| .8547  | .7543 74017  | .6564 44851  | .9626 29139  | .3880 39935  |
| .8548  | .7544 39657  | .6563 69411  | .9627 67948  | .3881 36204  |
| .8549  | .7545 05291  | .6562 93964  | .9629 06767  | .3882 32488  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.8550 | 0.7545 70916 | 0.6562 18510 | 0.9630 45595 | 1.3883 28766 |
| .8551  | .7546 36534  | .6561 43049  | .9631 84432  | .3884 28097  |
| .8552  | .7547 02145  | .6560 67582  | .9633 23280  | .3885 21423  |
| .8553  | .7547 67748  | .6559 92109  | .9634 62137  | .3886 17762  |
| .8554  | .7548 33343  | .6559 16629  | .9636 01003  | .3887 14115  |
| 0.8555 | 0.7548 98931 | 0.6558 41142 | 0.9637 39880 | 1.3888 10482 |
| .8556  | .7549 64511  | .6557 65649  | .9638 78765  | .3889 06863  |
| .8557  | .7550 30084  | .6556 90149  | .9640 17661  | .3890 03258  |
| .8558  | .7550 95649  | .6556 14643  | .9641 56566  | .3890 99667  |
| .8559  | .7551 61207  | .6555 39130  | .9642 95481  | .3891 96089  |
| 0.8560 | 0.7552 26757 | 0.6554 63611 | 0.9644 34405 | 1.3892 92526 |
| .8561  | .7552 92300  | .6553 88085  | .9645 73339  | .3893 88976  |
| .8562  | .7553 57835  | .6553 12552  | .9647 12283  | .3894 85440  |
| .8563  | .7554 23362  | .6552 37013  | .9648 51236  | .3895 81919  |
| .8564  | .7554 88882  | .6551 61468  | .9649 90199  | .3896 78411  |
| 0.8565 | 0.7555 54395 | 0.6550 85916 | 0.9651 29172 | 1.3897 74917 |
| .8566  | .7556 19899  | .6550 10357  | .9652 68154  | .3898 71436  |
| .8567  | .7556 85397  | .6549 34792  | .9654 07146  | .3899 67970  |
| .8568  | .7557 50886  | .6548 59220  | .9655 46148  | .3900 64518  |
| .8569  | .7558 16369  | .6547 83641  | .9656 85159  | .3901 61079  |
| 0.8570 | 0.7558 81843 | 0.6547 08056 | 0.9658 24180 | 1.3902 57655 |
| .8571  | .7559 47310  | .6546 32465  | .9659 63211  | .3903 54244  |
| .8572  | .7560 12770  | .6545 56867  | .9661 02251  | .3904 50848  |
| .8573  | .7560 78222  | .6544 81262  | .9662 41301  | .3905 47465  |
| .8574  | .7561 43666  | .6544 05651  | .9663 80361  | .3906 44096  |
| 0.8575 | 0.7562 09103 | 0.6543 30034 | 0.9665 19430 | 1.3907 40741 |
| .8576  | .7562 74532  | .6542 54410  | .9666 58509  | .3908 37400  |
| .8577  | .7563 39954  | .6541 78779  | .9667 97597  | .3909 34073  |
| .8578  | .7564 05368  | .6541 03142  | .9669 36696  | .3910 30759  |
| .8579  | .7564 70774  | .6540 27498  | .9670 75803  | .3911 27460  |
| 0.8580 | 0.7565 36173 | 0.6539 51847 | 0.9672 14921 | 1.3912 24174 |
| .8581  | .7566 01565  | .6538 76191  | .9673 54048  | .3913 20903  |
| .8582  | .7566 66948  | .6538 00527  | .9674 93185  | .3914 17645  |
| .8583  | .7567 32325  | .6537 24857  | .9676 32332  | .3915 14402  |
| .8584  | .7567 97693  | .6536 49181  | .9677 71488  | .3916 11172  |
| 0.8585 | 0.7568 63054 | 0.6535 73498 | 0.9679 10654 | 1.3917 07956 |
| .8586  | .7569 28408  | .6534 97808  | .9680 49830  | .3918 04754  |
| .8587  | .7569 93754  | .6534 22112  | .9681 89015  | .3919 01566  |
| .8588  | .7570 59092  | .6533 46409  | .9683 28210  | .3919 98392  |
| .8589  | .7571 24423  | .6532 70700  | .9684 67415  | .3920 95231  |
| 0.8590 | 0.7571 89747 | 0.6531 94984 | 0.9686 06629 | 1.3921 92085 |
| .8591  | .7572 55062  | .6531 19262  | .9687 45853  | .3922 88953  |
| .8592  | .7573 20370  | .6530 43533  | .9688 85087  | .3923 85834  |
| .8593  | .7573 85671  | .6529 67798  | .9690 24330  | .3924 82730  |
| .8594  | .7574 50964  | .6528 92056  | .9691 63583  | .3925 79639  |
| 0.8595 | 0.7575 16249 | 0.6528 16308 | 0.9693 02846 | 1.3926 76562 |
| .8596  | .7575 81527  | .6527 40553  | .9694 42119  | .3927 73500  |
| .8597  | .7576 46798  | .6526 64792  | .9695 81401  | .3928 70451  |
| .8598  | .7577 12060  | .6525 89024  | .9697 20693  | .3929 67416  |
| .8599  | .7577 77315  | .6525 13249  | .9698 59994  | .3930 64395  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.8600 | 0.7578 42563 | 0.6524 37468 | 0.9699 98306 | 1.3931 61388 |
| .8601  | .7579 07803  | .6523 61681  | .9701 38627  | .3932 58395  |
| .8602  | .7579 73035  | .6522 85887  | .9702 77957  | .3933 55416  |
| .8603  | .7580 38260  | .6522 10086  | .9704 17296  | .3934 52450  |
| .8604  | .7581 03477  | .6521 34279  | .9705 56648  | .3935 49499  |
| 0.8605 | 0.7581 68687 | 0.6520 58465 | 0.9706 96008 | 1.3936 46562 |
| .8606  | .7582 33889  | .6519 82645  | .9708 35377  | .3937 43638  |
| .8607  | .7582 99083  | .6519 06819  | .9709 74756  | .3938 40729  |
| .8608  | .7583 64270  | .6518 30985  | .9711 14145  | .3939 37833  |
| .8609  | .7584 29450  | .6517 55146  | .9712 53544  | .3940 34852  |
| 0.8610 | 0.7584 94621 | 0.6516 79300 | 0.9713 92952 | 1.3941 32084 |
| .8611  | .7585 59785  | .6516 03447  | .9715 32370  | .3942 29230  |
| .8612  | .7586 24942  | .6515 27588  | .9716 71798  | .3943 26391  |
| .8613  | .7586 90091  | .6514 51722  | .9718 11236  | .3944 23565  |
| .8614  | .7587 55232  | .6513 75950  | .9719 50683  | .3945 20753  |
| 0.8615 | 0.7588 20366 | 0.6512 99971 | 0.9720 90140 | 1.3946 17955 |
| .8616  | .7588 85492  | .6512 24085  | .9722 29606  | .3947 15171  |
| .8617  | .7589 50611  | .6511 48194  | .9723 69083  | .3948 12401  |
| .8618  | .7590 15722  | .6510 72295  | .9725 08569  | .3949 98645  |
| .8619  | .7590 80825  | .6509 96391  | .9726 48065  | .3950 06902  |
| 0.8620 | 0.7591 45921 | 0.6509 20479 | 0.9727 87570 | 1.3951 04174 |
| .8621  | .7592 11010  | .6508 44561  | .9729 27056  | .3952 01460  |
| .8622  | .7592 76090  | .6507 68637  | .9730 66611  | .3952 98760  |
| .8623  | .7593 41163  | .6506 92706  | .9732 06145  | .3953 96073  |
| .8624  | .7594 06229  | .6506 16769  | .9733 45690  | .3954 93401  |
| 0.8625 | 0.7594 71287 | 0.6505 40825 | 0.9734 85244 | 1.3955 90742 |
| .8626  | .7595 36337  | .6504 64874  | .9736 24808  | .3956 88098  |
| .8627  | .7596 01380  | .6503 88918  | .9737 64382  | .3957 85467  |
| .8628  | .7596 66415  | .6503 12954  | .9739 03965  | .3958 82851  |
| .8629  | .7597 31442  | .6502 36984  | .9740 43558  | .3959 80248  |
| 0.8630 | 0.7597 96462 | 0.6501 61008 | 0.9741 83161 | 1.3960 77360 |
| .8631  | .7598 61474  | .6500 85025  | .9743 22774  | .3961 75085  |
| .8632  | .7599 26479  | .6500 09036  | .9744 62396  | .3962 72524  |
| .8633  | .7599 91476  | .6499 33040  | .9746 02028  | .3963 69977  |
| .8634  | .7600 56466  | .6498 57037  | .9747 41670  | .3964 67444  |
| 0.8635 | 0.7601 21448 | 0.6497 81028 | 0.9748 81322 | 1.3965 64926 |
| .8636  | .7601 86422  | .6497 05013  | .9750 20983  | .3966 62421  |
| .8637  | .7602 51389  | .6496 28991  | .9751 60654  | .3967 59930  |
| .8638  | .7603 16348  | .6495 52963  | .9753 00335  | .3968 57453  |
| .8639  | .7603 81299  | .6494 76928  | .9754 40026  | .3969 54990  |
| 0.8640 | 0.7604 46243 | 0.6494 00887 | 0.9755 79726 | 1.3970 52541 |
| .8641  | .7605 11179  | .6493 24839  | .9757 19436  | .3971 50106  |
| .8642  | .7605 76108  | .6492 48784  | .9758 59156  | .3972 47685  |
| .8643  | .7606 41029  | .6491 72723  | .9759 98886  | .3973 45278  |
| .8644  | .7607 05943  | .6490 96656  | .9761 38625  | .3974 42885  |
| 0.8645 | 0.7607 70848 | 0.6490 20582 | 0.9762 78374 | 1.3975 40505 |
| .8646  | .7608 35747  | .6489 44502  | .9764 18133  | .3976 38140  |
| .8647  | .7609 00637  | .6488 68415  | .9765 57902  | .3977 35789  |
| .8648  | .7609 65520  | .6487 92322  | .9766 97680  | .3978 33452  |
| .8649  | .7610 30396  | .6487 16222  | .9768 37469  | .3979 31129  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.8650 | 0.7610 95264 | 0.6486 40116 | 0.9769 77267 | 1.3980 28819 |
| .8651  | .7611 60124  | .6485 64003  | .9771 17074  | .3981 26524  |
| .8652  | .7612 24976  | .6484 87884  | .9772 56892  | .3982 24243  |
| .8653  | .7612 89821  | .6484 11758  | .9773 96719  | .3983 21975  |
| .8654  | .7613 54659  | .6483 35626  | .9775 36656  | .3984 19722  |
| 0.8655 | 0.7614 19489 | 0.6482 59487 | 0.9776 76403 | 1.3985 17483 |
| .8656  | .7614 84311  | .6481 83342  | .9778 16260  | .3986 15257  |
| .8657  | .7615 49125  | .6481 07190  | .9779 56126  | .3987 13046  |
| .8658  | .7616 13932  | .6480 31032  | .9780 96002  | .3988 10849  |
| .8659  | .7616 78731  | .6479 54867  | .9782 35888  | .3989 08665  |
| 0.8660 | 0.7617 43523 | 0.6478 78696 | 0.9783 75784 | 1.3990 06496 |
| .8661  | .7618 08307  | .6478 02519  | .9785 15690  | .3991 04340  |
| .8662  | .7618 73084  | .6477 26335  | .9786 55605  | .3992 02199  |
| .8663  | .7619 37852  | .6476 50144  | .9787 95530  | .3993 00071  |
| .8664  | .7620 02614  | .6475 73947  | .9789 35465  | .3993 97958  |
| 0.8665 | 0.7620 67367 | 0.6474 97743 | 0.9790 75410 | 1.3994 95859 |
| .8666  | .7621 32113  | .6474 21534  | .9792 15364  | .3995 93773  |
| .8667  | .7621 96852  | .6473 45317  | .9793 55329  | .3996 91702  |
| .8668  | .7622 61582  | .6472 69094  | .9794 95303  | .3997 89644  |
| .8669  | .7623 26305  | .6471 92865  | .9796 35286  | .3998 87601  |
| 0.8670 | 0.7623 91021 | 0.6471 16629 | 0.9797 75280 | 1.3999 85571 |
| .8671  | .7624 55729  | .6470 40387  | .9799 15284  | .4000 83556  |
| .8672  | .7625 20429  | .6469 64138  | .9800 55297  | .4001 81554  |
| .8673  | .7625 85121  | .6468 87882  | .9801 95320  | .4002 79567  |
| .8674  | .7626 49806  | .6468 11621  | .9803 35353  | .4003 77593  |
| 0.8675 | 0.7627 14484 | 0.6467 35353 | 0.9804 75395 | 1.4004 75634 |
| .8676  | .7627 79154  | .6466 59078  | .9806 15448  | .4005 73688  |
| .8677  | .7628 43816  | .6465 82797  | .9807 55510  | .4006 71757  |
| .8678  | .7629 08470  | .6465 06509  | .9808 95582  | .4007 69839  |
| .8679  | .7629 73117  | .6464 30215  | .9810 35664  | .4008 67936  |
| 0.8680 | 0.7630 37756 | 0.6463 53914 | 0.9811 75756 | 1.4009 66047 |
| .8681  | .7631 02388  | .6462 77607  | .9813 15857  | .4010 64171  |
| .8682  | .7631 67012  | .6462 01294  | .9814 55969  | .4011 62310  |
| .8683  | .7632 31628  | .6461 24974  | .9815 96090  | .4012 60462  |
| .8684  | .7632 96237  | .6460 48648  | .9817 36221  | .4013 58629  |
| 0.8685 | 0.7633 60838 | 0.6459 72315 | 0.9818 76362 | 1.4014 56810 |
| .8686  | .7634 25431  | .6458 95975  | .9820 16512  | .4015 55004  |
| .8687  | .7634 90017  | .6458 19630  | .9821 56673  | .4016 53213  |
| .8688  | .7635 54595  | .6457 43277  | .9822 96843  | .4017 51436  |
| .8689  | .7636 19166  | .6456 66919  | .9824 37023  | .4018 49672  |
| 0.8690 | 0.7636 83728 | 0.6455 90554 | 0.9825 77213 | 1.4019 47923 |
| .8691  | .7637 48284  | .6455 14182  | .9827 17412  | .4020 46188  |
| .8692  | .7638 12831  | .6454 37804  | .9828 57622  | .4021 44467  |
| .8693  | .7638 77371  | .6453 61419  | .9829 97841  | .4022 42759  |
| .8694  | .7639 41904  | .6452 85029  | .9831 38070  | .4023 41066  |
| 0.8695 | 0.7640 06428 | 0.6452 08631 | 0.9832 78310 | 1.4024 39387 |
| .8696  | .7640 70945  | .6451 32227  | .9834 18568  | .4025 37722  |
| .8697  | .7641 35455  | .6450 55817  | .9835 58817  | .4026 36071  |
| .8698  | .7641 99956  | .6449 79400  | .9836 99086  | .4027 34434  |
| .8699  | .7642 64451  | .6449 02977  | .9838 39364  | .4028 32810  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.8700 | 0.7643 28937 | 0.6443 28547 | 0.9839 70852 | 1.4029 31201 |
| .8701  | .7643 93416  | .6447 50111  | .9841 19950  | .4030 29606  |
| .8702  | .7644 57887  | .6446 73639  | .9842 60258  | .4031 29025  |
| .8703  | .7645 22351  | .6445 97220  | .9844 00576  | .4032 28458  |
| .8704  | .7645 86806  | .6445 20764  | .9845 40903  | .4033 24905  |
| 0.8705 | 0.7646 51255 | 0.6444 44302 | 0.9846 81241 | 1.4034 23367 |
| .8706  | .7647 15695  | .6443 67834  | .9848 21588  | .4035 21842  |
| .8707  | .7647 80128  | .6442 91359  | .9849 61945  | .4036 20331  |
| .8708  | .7648 44554  | .6442 14878  | .9851 02312  | .4037 18834  |
| .8709  | .7649 08971  | .6441 38390  | .9852 42699  | .4038 17351  |
| 0.8710 | 0.7649 73391 | 0.6440 61896 | 0.9853 83076 | 1.4039 15883 |
| .8711  | .7650 37784  | .6439 85395  | .9855 23472  | .4040 14428  |
| .8712  | .7651 02178  | .6439 08888  | .9856 63878  | .4041 12987  |
| .8713  | .7651 66565  | .6439 32375  | .9858 04295  | .4042 11561  |
| .8714  | .7652 30945  | .6437 55855  | .9859 44721  | .4043 10148  |
| 0.8715 | 0.7652 95317 | 0.6436 79329 | 0.9860 85157 | 1.4044 08750 |
| .8716  | .7653 59681  | .6436 02796  | .9862 25603  | .4045 07355  |
| .8717  | .7654 24037  | .6435 26257  | .9863 66058  | .4046 05895  |
| .8718  | .7654 88386  | .6434 49711  | .9865 06524  | .4047 04338  |
| .8719  | .7655 52727  | .6433 73159  | .9866 46999  | .4048 03296  |
| 0.8720 | 0.7656 17061 | 0.6432 96601 | 0.9867 87484 | 1.4049 01868 |
| .8721  | .7656 81386  | .6432 20036  | .9869 27980  | .4050 00654  |
| .8722  | .7657 45705  | .6431 43464  | .9870 68435  | .4050 99353  |
| .8723  | .7658 10015  | .6430 66887  | .9872 08999  | .4051 98067  |
| .8724  | .7658 74318  | .6429 90302  | .9873 49524  | .4052 96795  |
| 0.8725 | 0.7659 38613 | 0.6429 13712 | 0.9874 90059 | 1.4053 95537 |
| .8726  | .7660 02901  | .6428 37115  | .9876 30603  | .4054 94293  |
| .8727  | .7660 67181  | .6427 60511  | .9877 71158  | .4055 93063  |
| .8728  | .7661 31453  | .6426 83901  | .9879 11722  | .4056 91848  |
| .8729  | .7661 95717  | .6426 07285  | .9880 52296  | .4057 90646  |
| 0.8730 | 0.7662 59974 | 0.6425 30662 | 0.9881 92880 | 1.4058 89458 |
| .8731  | .7663 24224  | .6424 54033  | .9883 33474  | .4059 88284  |
| .8732  | .7663 88465  | .6423 77397  | .9884 74078  | .4060 87125  |
| .8733  | .7664 52699  | .6423 00755  | .9886 14691  | .4061 85979  |
| .8734  | .7665 16925  | .6422 24107  | .9887 55315  | .4062 84848  |
| 0.8735 | 0.7665 81144 | 0.6421 47452 | 0.9888 95948 | 1.4063 83730 |
| .8736  | .7666 45355  | .6420 70791  | .9890 36592  | .4064 82627  |
| .8737  | .7667 09558  | .6419 94123  | .9891 77245  | .4065 81537  |
| .8738  | .7667 73754  | .6419 17449  | .9893 17908  | .4066 80462  |
| .8739  | .7668 37941  | .6418 40768  | .9894 58581  | .4067 79401  |
| 0.8740 | 0.7669 02122 | 0.6417 64081 | 0.9895 99264 | 1.4068 78354 |
| .8741  | .7669 66294  | .6416 87388  | .9897 39957  | .4069 77321  |
| .8742  | .7670 30459  | .6416 10688  | .9898 80659  | .4070 76302  |
| .8743  | .7670 94616  | .6415 33982  | .9900 21372  | .4071 75297  |
| .8744  | .7671 58766  | .6414 57269  | .9901 62094  | .4072 74303  |
| 0.8745 | 0.7672 22908 | 0.6413 80550 | 0.9903 02827 | 1.4073 73329 |
| .8746  | .7672 87042  | .6413 03824  | .9904 43569  | .4074 72367  |
| .8747  | .7673 51169  | .6412 27092  | .9905 84321  | .4075 71418  |
| .8748  | .7674 15288  | .6411 50354  | .9907 25083  | .4076 70484  |
| .8749  | .7674 79399  | .6410 73609  | .9908 65855  | .4077 69563  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.8750 | 0.7675 43502 | 0.6409 96858 | 0.9910 06637 | 1.4078 68657 |
| .8751  | .7676 07598  | .6409 20101  | .9911 47429  | .4079 67765  |
| .8752  | .7676 71686  | .6408 43337  | .9912 88231  | .4080 66886  |
| .8753  | .7677 35767  | .6407 66566  | .9914 29042  | .4081 66022  |
| .8754  | .7677 99840  | .6406 89789  | .9915 69864  | .4082 65172  |
| 0.8755 | 0.7678 63905 | 0.6406 13006 | 0.9917 10695 | 1.4083 64336 |
| .8756  | .7679 27962  | .6405 36217  | .9918 51537  | .4084 63514  |
| .8757  | .7679 92012  | .6404 59421  | .9919 92388  | .4085 62706  |
| .8758  | .7680 56054  | .6403 82618  | .9921 33249  | .4086 61913  |
| .8759  | .7681 20088  | .6403 05810  | .9922 74120  | .4087 61133  |
| 0.8760 | 0.7681 84115 | 0.6402 28994 | 0.9924 15002 | 1.4088 60368 |
| .8761  | .7682 48134  | .6401 52173  | .9925 55893  | .4089 59616  |
| .8762  | .7683 12146  | .6400 75345  | .9926 96793  | .4090 58879  |
| .8763  | .7683 76149  | .6399 98510  | .9928 37704  | .4091 58155  |
| .8764  | .7684 40145  | .6399 21669  | .9929 78625  | .4092 57446  |
| 0.8765 | 0.7685 04134 | 0.6398 44822 | 0.9931 19556 | 1.4093 56751 |
| .8766  | .7685 68114  | .6397 67969  | .9932 60496  | .4094 56070  |
| .8767  | .7686 32087  | .6396 91109  | .9934 01447  | .4095 55403  |
| .8768  | .7686 96053  | .6396 14242  | .9935 42408  | .4096 54750  |
| .8769  | .7687 60010  | .6395 37369  | .9936 83378  | .4097 54112  |
| 0.8770 | 0.7688 23960 | 0.6394 60490 | 0.9938 24358 | 1.4098 53487 |
| .8771  | .7688 87902  | .6393 83605  | .9939 65349  | .4099 52877  |
| .8772  | .7689 51837  | .6393 06713  | .9941 06349  | .4100 52280  |
| .8773  | .7690 15764  | .6392 29814  | .9942 47359  | .4101 51698  |
| .8774  | .7690 79683  | .6391 52909  | .9943 88379  | .4102 51130  |
| 0.8775 | 0.7691 43594 | 0.6390 75998 | 0.9945 29409 | 1.4103 50576 |
| .8776  | .7692 07498  | .6389 99081  | .9946 70449  | .4104 50036  |
| .8777  | .7692 71394  | .6389 22157  | .9948 11499  | .4105 49510  |
| .8778  | .7693 35282  | .6388 45226  | .9949 52559  | .4106 48998  |
| .8779  | .7693 99163  | .6387 68290  | .9950 93629  | .4107 48500  |
| 0.8780 | 0.7694 63036 | 0.6386 91347 | 0.9952 34709 | 1.4108 48017 |
| .8781  | .7695 26901  | .6386 14397  | .9953 75799  | .4109 47547  |
| .8782  | .7695 90759  | .6385 37441  | .9955 16898  | .4110 47092  |
| .8783  | .7696 54609  | .6384 60479  | .9956 58008  | .4111 46651  |
| .8784  | .7697 18451  | .6383 83510  | .9957 99128  | .4112 46223  |
| 0.8785 | 0.7697 82285 | 0.6383 06535 | 0.9959 40257 | 1.4113 45810 |
| .8786  | .7698 46112  | .6382 29554  | .9960 81397  | .4114 45411  |
| .8787  | .7699 09931  | .6381 52566  | .9962 22547  | .4115 45027  |
| .8788  | .7699 73743  | .6380 75572  | .9963 63706  | .4116 44656  |
| .8789  | .7700 37546  | .6379 98571  | .9965 04875  | .4117 44299  |
| 0.8790 | 0.7701 01342 | 0.6379 21564 | 0.9966 46055 | 1.4118 43957 |
| .8791  | .7701 65131  | .6378 44551  | .9967 87244  | .4119 43629  |
| .8792  | .7702 28911  | .6377 67531  | .9969 28444  | .4120 43314  |
| .8793  | .7702 92684  | .6376 90505  | .9970 69653  | .4121 43014  |
| .8794  | .7703 56450  | .6376 13473  | .9972 10872  | .4122 42728  |
| 0.8795 | 0.7704 20207 | 0.6375 36434 | 0.9973 52101 | 1.4123 42456 |
| .8796  | .7704 83957  | .6374 59389  | .9974 93341  | .4124 42199  |
| .8797  | .7705 47699  | .6373 82337  | .9976 34590  | .4125 41955  |
| .8798  | .7706 11433  | .6373 05279  | .9977 75849  | .4126 41726  |
| .8799  | .7706 75160  | .6372 28215  | .9979 17118  | .4127 41510  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.8800 | 0.7707 38879 | 0.6371 51144 | 0.9980 58397 | 1.4128 41309 |
| .8801  | .7708 02590  | .6370 74067  | .9981 99686  | .4129 41122  |
| .8802  | .7708 66294  | .6369 96984  | .9983 40986  | .4130 40949  |
| .8803  | .7709 29990  | .6369 19894  | .9984 82295  | .4131 40790  |
| .8804  | .7709 93678  | .6368 42798  | .9986 23614  | .4132 40645  |
| 0.8805 | 0.7710 57358 | 0.6367 65695 | 0.9987 64943 | 1.4133 40515 |
| .8806  | .7711 21031  | .6366 88586  | .9989 06282  | .4134 40398  |
| .8807  | .7711 84696  | .6366 11471  | .9990 47631  | .4135 40296  |
| .8808  | .7712 48353  | .6365 34349  | .9991 88990  | .4136 40206  |
| .8809  | .7713 12003  | .6364 57221  | .9993 30359  | .4137 40134  |
| 0.8810 | 0.7713 75645 | 0.6363 80087 | 0.9994 71735 | 1.4138 40074 |
| .8811  | .7714 39279  | .6363 02946  | .9996 13127  | .4139 40028  |
| .8812  | .7715 02905  | .6362 25799  | .9997 54528  | .4140 39997  |
| .8813  | .7715 66524  | .6361 48646  | .9998 95935  | .4141 39979  |
| .8814  | .7716 30135  | .6360 71486  | 1.0000 37354 | .4142 39976  |
| 0.8815 | 0.7716 93738 | 0.6359 94320 | 1.0001 78763 | 1.4143 39987 |
| .8816  | .7717 57334  | .6359 17147  | .0003 20222  | .4144 40012  |
| .8817  | .7718 20922  | .6358 39962  | .0004 61671  | .4145 40051  |
| .8818  | .7718 84502  | .6357 62783  | .0006 03130  | .4146 40104  |
| .8819  | .7719 48074  | .6356 85591  | .0007 44599  | .4147 40171  |
| 0.8820 | 0.7720 11639 | 0.6356 08393 | 1.0008 86078 | 1.4148 40253 |
| .8821  | .7720 75196  | .6355 31189  | .0010 27567  | .4149 40349  |
| .8822  | .7721 38745  | .6354 53978  | .0011 69066  | .4150 40453  |
| .8823  | .7722 02287  | .6353 76761  | .0013 10575  | .4151 40582  |
| .8824  | .7722 65820  | .6352 99538  | .0014 52094  | .4152 40720  |
| 0.8825 | 0.7723 29347 | 0.6352 22308 | 1.0015 93623 | 1.4153 40873 |
| .8826  | .7723 92865  | .6351 45072  | .0017 35123  | .4154 41039  |
| .8827  | .7724 56376  | .6350 67829  | .0018 76711  | .4155 41220  |
| .8828  | .7725 19878  | .6349 90581  | .0020 18271  | .4156 41415  |
| .8829  | .7725 83374  | .6349 13325  | .0021 59840  | .4157 41623  |
| 0.8830 | 0.7726 46661 | 0.6348 36064 | 1.0023 01416 | 1.4158 41847 |
| .8831  | .7727 10341  | .6347 58796  | .0024 43008  | .4159 42084  |
| .8832  | .7727 73813  | .6346 81522  | .0025 84607  | .4160 42335  |
| .8833  | .7728 37277  | .6346 04241  | .0027 26217  | .4161 42601  |
| .8834  | .7729 00734  | .6345 26954  | .0028 67836  | .4162 42880  |
| 0.8835 | 0.7729 64183 | 0.6344 49661 | 1.0030 09465 | 1.4163 43174 |
| .8836  | .7730 27624  | .6343 72361  | .0031 51104  | .4164 43482  |
| .8837  | .7730 91057  | .6342 95056  | .0032 92754  | .4165 43804  |
| .8838  | .7731 54483  | .6342 17745  | .0034 34413  | .4166 44141  |
| .8839  | .7732 17901  | .6341 40425  | .0035 76083  | .4167 44491  |
| 0.8840 | 0.7732 81311 | 0.6340 63100 | 1.0037 17762 | 1.4168 44856 |
| .8841  | .7733 44713  | .6339 85768  | .0038 59455  | .4169 45235  |
| .8842  | .7734 08108  | .6339 08431  | .0040 01151  | .4170 45628  |
| .8843  | .7734 71495  | .6338 31087  | .0041 42861  | .4171 46035  |
| .8844  | .7735 34874  | .6337 53736  | .0042 84580  | .4172 46456  |
| 0.8845 | 0.7735 98246 | 0.6336 76380 | 1.0044 26310 | 1.4173 46892 |
| .8846  | .7736 61609  | .6335 99017  | .0045 68050  | .4174 47342  |
| .8847  | .7737 24965  | .6335 21647  | .0047 09800  | .4175 47806  |
| .8848  | .7737 88314  | .6334 44272  | .0048 51559  | .4176 48284  |
| .8849  | .7738 51654  | .6333 66890  | .0049 93329  | .4177 48776  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.8850 | 0.7739 14987 | 0.6332 89501 | 1.0081 34163 | 1.4113 49282 |
| .8851  | .7739 78312  | .6332 12107  | .0081 34843  | .4113 49803  |
| .8852  | .7740 41630  | .6331 34706  | .0084 11637  | .4110 50328  |
| .8853  | .7741 04939  | .6330 57298  | .0087 00844  | .4111 50857  |
| .8854  | .7741 68241  | .6329 79855  | .0087 01319  | .4112 51450  |
| 0.8855 | 0.7742 31535 | 0.6329 02465 | 1.0088 44183 | 1.4117 52027 |
| .8856  | .7742 94822  | .6328 25039  | .0088 00000  | .4114 52610  |
| .8857  | .7743 58100  | .6327 47606  | .0091 17740  | .4115 53224  |
| .8858  | .7744 21371  | .6326 70167  | .0091 03710  | .4116 53844  |
| .8859  | .7744 84634  | .6325 92722  | .0094 11181  | .4117 54478  |
| 0.8860 | 0.7745 47890 | 0.6325 15270 | 1.0095 16431 | 1.4122 55127 |
| .8861  | .7746 11137  | .6324 37813  | .0095 00000  | .4118 55739  |
| .8862  | .7746 74377  | .6323 60348  | .0098 27481  | .4119 56360  |
| .8863  | .7747 37609  | .6322 82877  | .0098 03115  | .4121 57156  |
| .8864  | .7748 00834  | .6322 05400  | .0097 11164  | .4122 57861  |
| 0.8865 | 0.7748 64050 | 0.6321 27917 | 1.0097 33015 | 1.4126 58581 |
| .8866  | .7749 27259  | .6320 50427  | .0097 04985  | .4124 59214  |
| .8867  | .7749 90460  | .6319 72932  | .0098 41306  | .4125 60062  |
| .8868  | .7750 53654  | .6318 95429  | .0097 07077  | .4126 60823  |
| .8869  | .7751 16840  | .6318 17921  | .0098 30039  | .4127 61599  |
| 0.8870 | 0.7751 80017 | 0.6317 40406 | 1.0098 71830 | 1.4131 62390 |
| .8871  | .7752 43188  | .6316 62885  | .0098 14111  | .4128 63194  |
| .8872  | .7753 06350  | .6315 85357  | .0098 50312  | .4130 64013  |
| .8873  | .7753 69505  | .6315 07824  | .0098 06014  | .4131 64845  |
| .8874  | .7754 32652  | .6314 30283  | .0099 42141  | .4132 65692  |
| 0.8875 | 0.7754 95791 | 0.6313 52737 | 1.0099 83977 | 1.4136 66554 |
| .8876  | .7755 58922  | .6312 75184  | .0099 14119  | .4134 67429  |
| .8877  | .7756 22046  | .6311 97625  | .0099 50371  | .4136 68319  |
| .8878  | .7756 85162  | .6311 20060  | .0098 06032  | .4136 69222  |
| .8879  | .7757 48270  | .6310 42488  | .0099 42104  | .4137 70140  |
| 0.8880 | 0.7758 11370 | 0.6309 64910 | 1.0099 83196 | 1.4140 71073 |
| .8881  | .7758 74463  | .6308 87326  | .0099 35279  | .4138 72019  |
| .8882  | .7759 37548  | .6308 09735  | .0099 71391  | .4140 72980  |
| .8883  | .7760 00625  | .6307 32138  | .0099 07493  | .4141 73954  |
| .8884  | .7760 63694  | .6306 54535  | .0099 43616  | .4142 74944  |
| 0.8885 | 0.7761 26756 | 0.6305 76926 | 1.0101 03741 | 1.4146 75947 |
| .8886  | .7761 89809  | .6304 99310  | .0102 45831  | .4214 76964  |
| .8887  | .7762 52855  | .6304 21688  | .0103 81044  | .4215 77996  |
| .8888  | .7763 15894  | .6303 44059  | .0105 30206  | .4216 79042  |
| .8889  | .7763 78924  | .6302 66425  | .0106 72379  | .4217 80102  |
| 0.8890 | 0.7764 41947 | 0.6301 88783 | 1.0108 14862 | 1.4218 81176 |
| .8891  | .7765 04962  | .6301 11136  | .0109 56756  | .4219 82265  |
| .8892  | .7765 67969  | .6300 33482  | .0110 98950  | .4220 83368  |
| .8893  | .7766 30969  | .6299 55823  | .0112 41172  | .4221 84485  |
| .8894  | .7766 93960  | .6298 78156  | .0113 83396  | .4222 85616  |
| 0.8895 | 0.7767 56944 | 0.6298 00484 | 1.0115 25629 | 1.4223 86761 |
| .8896  | .7768 19921  | .6297 22805  | .0116 67873  | .4224 87921  |
| .8897  | .7768 82889  | .6296 45120  | .0118 10127  | .4225 89095  |
| .8898  | .7769 45850  | .6295 67428  | .0119 52391  | .4226 90283  |
| .8899  | .7770 08802  | .6294 89731  | .0120 94665  | .4227 91485  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 0.8900 | 0.7770 71748 | 0.6294 12027 | 1.0122 36949 | 1.4228 92702 |
| .8901  | .7771 34685  | .6293 34316  | .0123 79244  | .4229 93933  |
| .8902  | .7771 97614  | .6292 56600  | .0125 21548  | .4230 95178  |
| .8903  | .7772 60536  | .6291 78877  | .0126 63863  | .4231 96437  |
| .8904  | .7773 23450  | .6291 01148  | .0128 06187  | .4232 97711  |
| 0.8905 | 0.7773 86356 | 0.6290 23412 | 1.0129 48522 | 1.4233 98998 |
| .8906  | .7774 49255  | .6289 45670  | .0130 90867  | .4235 00300  |
| .8907  | .7775 12146  | .6288 67922  | .0132 33222  | .4236 01617  |
| .8908  | .7775 75028  | .6287 90168  | .0133 75587  | .4237 02947  |
| .8909  | .7776 37904  | .6287 12407  | .0135 17963  | .4238 04292  |
| 0.8910 | 0.7777 00771 | 0.6286 34640 | 1.0136 60348 | 1.4239 05651 |
| .8911  | .7777 63630  | .6285 56867  | .0138 02744  | .4240 07024  |
| .8912  | .7778 26482  | .6284 79088  | .0139 45150  | .4241 08411  |
| .8913  | .7778 89326  | .6284 01302  | .0140 87566  | .4242 09813  |
| .8914  | .7779 52163  | .6283 23510  | .0142 29992  | .4243 11229  |
| 0.8915 | 0.7780 14991 | 0.6282 45711 | 1.0143 72428 | 1.4244 12659 |
| .8916  | .7780 77812  | .6281 67907  | .0145 14874  | .4245 14103  |
| .8917  | .7781 40625  | .6280 90096  | .0146 57331  | .4246 15562  |
| .8918  | .7782 03430  | .6280 12279  | .0147 99797  | .4247 17035  |
| .8919  | .7782 66227  | .6279 34455  | .0149 42274  | .4248 18522  |
| 0.8920 | 0.7783 29017 | 0.6278 56625 | 1.0150 84761 | 1.4249 20023 |
| .8921  | .7783 91798  | .6277 78789  | .0152 27258  | .4250 21539  |
| .8922  | .7784 54572  | .6277 00947  | .0153 69765  | .4251 23069  |
| .8923  | .7785 17339  | .6276 23098  | .0155 12283  | .4252 24613  |
| .8924  | .7785 80097  | .6275 45245  | .0156 54810  | .4253 26171  |
| 0.8925 | 0.7786 42848 | 0.6274 67382 | 1.0157 97348 | 1.4254 27744 |
| .8926  | .7787 05590  | .6273 89515  | .0159 39896  | .4255 29330  |
| .8927  | .7787 68326  | .6273 11641  | .0160 82454  | .4256 30932  |
| .8928  | .7788 31053  | .6272 33761  | .0162 25022  | .4257 32547  |
| .8929  | .7788 93772  | .6271 55875  | .0163 67600  | .4258 34177  |
| 0.8930 | 0.7789 56484 | 0.6270 77982 | 1.0165 10189 | 1.4259 35820 |
| .8931  | .7790 19188  | .6270 00084  | .0166 52788  | .4260 37479  |
| .8932  | .7790 81884  | .6269 22179  | .0167 95396  | .4261 39151  |
| .8933  | .7791 44572  | .6268 44267  | .0169 38018  | .4262 40838  |
| .8934  | .7792 07253  | .6267 66350  | .0170 80645  | .4263 42539  |
| 0.8935 | 0.7792 69926 | 0.6266 88426 | 1.0172 23284 | 1.4264 44254 |
| .8936  | .7793 32591  | .6266 10496  | .0173 65933  | .4265 45983  |
| .8937  | .7793 95248  | .6265 32559  | .0175 08593  | .4266 47727  |
| .8938  | .7794 57897  | .6264 54617  | .0176 51263  | .4267 49485  |
| .8939  | .7795 20539  | .6263 76668  | .0177 93943  | .4268 51257  |
| 0.8940 | 0.7795 83172 | 0.6262 98713 | 1.0179 36633 | 1.4269 53044 |
| .8941  | .7796 45798  | .6262 20751  | .0180 79334  | .4270 54845  |
| .8942  | .7797 08417  | .6261 42783  | .0182 22044  | .4271 56660  |
| .8943  | .7797 71027  | .6260 64809  | .0183 64765  | .4272 58489  |
| .8944  | .7798 33629  | .6259 86829  | .0185 07496  | .4273 60333  |
| 0.8945 | 0.7798 96224 | 0.6259 08843 | 1.0186 50237 | 1.4274 62190 |
| .8946  | .7799 58811  | .6258 30850  | .0187 92988  | .4275 64063  |
| .8947  | .7800 21390  | .6257 52851  | .0189 35750  | .4276 65949  |
| .8948  | .7800 83962  | .6256 74846  | .0190 78521  | .4277 67850  |
| .8949  | .7801 46525  | .6255 96834  | .0192 21303  | .4278 69765  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.8950 | 0.7802 09081 | 0.6255 18816 | 1.0193 64095 | 1.4279 71694 |
| .8951  | .7802 71629  | .6254 40792  | .0195 06898  | .4280 73638  |
| .8952  | .7803 34169  | .6253 62762  | .0196 49710  | .4281 75595  |
| .8953  | .7803 96702  | .6252 84726  | .0197 92533  | .4282 77568  |
| .8954  | .7804 59226  | .6252 06683  | .0199 35366  | .4283 79554  |
| 0.8955 | 0.7805 21743 | 0.6251 28634 | 1.0200 78209 | 1.4284 81555 |
| .8956  | .7805 84252  | .6250 50578  | .0202 21062  | .4285 83570  |
| .8957  | .7806 46753  | .6249 72517  | .0203 63925  | .4286 85599  |
| .8958  | .7807 09247  | .6248 94449  | .0205 06799  | .4287 87642  |
| .8959  | .7807 71732  | .6248 16375  | .0206 49683  | .4288 89700  |
| 0.8960 | 0.7808 34210 | 0.6247 38295 | 1.0207 92577 | 1.4289 91772 |
| .8961  | .7808 96680  | .6246 60208  | .0209 35481  | .4290 93859  |
| .8962  | .7809 59142  | .6245 82115  | .0210 78396  | .4291 95959  |
| .8963  | .7810 21596  | .6245 04016  | .0212 21320  | .4292 98074  |
| .8964  | .7810 84043  | .6244 25911  | .0213 64255  | .4294 00204  |
| 0.8965 | 0.7811 46481 | 0.6243 47799 | 1.0215 07201 | 1.4295 02347 |
| .8966  | .7812 08912  | .6242 69682  | .0216 50156  | .4296 04505  |
| .8967  | .7812 71355  | .6241 91558  | .0217 93121  | .4297 06677  |
| .8968  | .7813 33750  | .6241 13427  | .0219 36097  | .4298 08864  |
| .8969  | .7813 96158  | .6240 35291  | .0220 79083  | .4299 11064  |
| 0.8970 | 0.7814 58558 | 0.6239 57148 | 1.0222 22079 | 1.4300 13280 |
| .8971  | .7815 20949  | .6238 78999  | .0223 65086  | .4301 15509  |
| .8972  | .7815 83333  | .6238 00844  | .0225 08103  | .4302 17753  |
| .8973  | .7816 45710  | .6237 22683  | .0226 51129  | .4303 20011  |
| .8974  | .7817 08078  | .6236 44515  | .0227 94167  | .4304 22283  |
| 0.8975 | 0.7817 70438 | 0.6235 66341 | 1.0229 37214 | 1.4305 24569 |
| .8976  | .7818 32791  | .6234 88161  | .0230 80271  | .4306 26870  |
| .8977  | .7818 95136  | .6234 09974  | .0232 23339  | .4307 29185  |
| .8978  | .7819 57473  | .6233 31782  | .0233 66417  | .4308 31515  |
| .8979  | .7820 19802  | .6232 53583  | .0235 09506  | .4309 33859  |
| 0.8980 | 0.7820 82124 | 0.6231 75378 | 1.0236 52604 | 1.4310 36217 |
| .8981  | .7821 44437  | .6230 97166  | .0237 95713  | .4311 38589  |
| .8982  | .7822 06743  | .6230 18949  | .0239 38832  | .4312 40976  |
| .8983  | .7822 69041  | .6229 40725  | .0240 81961  | .4313 43377  |
| .8984  | .7823 31331  | .6228 62495  | .0242 25100  | .4314 45792  |
| 0.8985 | 0.7823 93614 | 0.6227 84259 | 1.0243 68250 | 1.4315 48222 |
| .8986  | .7824 55888  | .6227 06016  | .0245 11410  | .4316 50666  |
| .8987  | .7825 18155  | .6226 27768  | .0246 54580  | .4317 53124  |
| .8988  | .7825 80414  | .6225 49513  | .0247 97761  | .4318 55597  |
| .8989  | .7826 42665  | .6224 71252  | .0249 40951  | .4319 58084  |
| 0.8990 | 0.7827 04908 | 0.6223 92984 | 1.0250 84152 | 1.4320 60585 |
| .8991  | .7827 67143  | .6223 14711  | .0252 27364  | .4321 63101  |
| .8992  | .7828 29371  | .6222 36431  | .0253 70585  | .4322 65631  |
| .8993  | .7828 91591  | .6221 58145  | .0255 13817  | .4323 68175  |
| .8994  | .7829 53803  | .6220 79852  | .0256 57059  | .4324 70733  |
| 0.8995 | 0.7830 16007 | 0.6220 01554 | 1.0258 00311 | 1.4325 73306 |
| .8996  | .7830 78203  | .6219 23249  | .0259 43573  | .4326 75893  |
| .8997  | .7831 40391  | .6218 44938  | .0260 86846  | .4327 78495  |
| .8998  | .7832 02572  | .6217 66621  | .0262 30129  | .4328 81111  |
| .8999  | .7832 64745  | .6216 88298  | .0263 73422  | .4329 83741  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.9000 | 0.7833 26910 | 0.6216 09968 | 1.0265 16726 | 1.4330 86385 |
| .9001  | .7833 89087  | .6215 31632  | .0266 60039  | .4331 89044  |
| .9002  | .7834 51216  | .6214 53290  | .0268 03364  | .4332 81717  |
| .9003  | .7835 13357  | .6213 74942  | .0269 46698  | .4333 34405  |
| .9004  | .7835 75491  | .6212 96588  | .0270 90042  | .4334 97107  |
| 0.9005 | 0.7836 37617 | 0.6212 18227 | 1.0272 33397 | 1.4335 99823 |
| .9006  | .7836 99735  | .6211 39860  | .0273 76762  | .4337 02553  |
| .9007  | .7837 61845  | .6210 61487  | .0275 20138  | .4338 05298  |
| .9008  | .7838 23947  | .6209 83108  | .0276 63523  | .4339 08058  |
| .9009  | .7838 86041  | .6209 04722  | .0278 06919  | .4340 10831  |
| 0.9010 | 0.7839 48128 | 0.6208 26331 | 1.0279 50326 | 1.4341 13619 |
| .9011  | .7840 10207  | .6207 47933  | .0280 93742  | .4342 16421  |
| .9012  | .7840 72277  | .6206 69529  | .0282 37169  | .4343 19238  |
| .9013  | .7841 34340  | .6205 91118  | .0283 80606  | .4344 22069  |
| .9014  | .7841 96396  | .6205 12702  | .0285 24053  | .4345 24914  |
| 0.9015 | 0.7842 58443 | 0.6204 34279 | 1.0286 67511 | 1.4346 27773 |
| .9016  | .7843 20482  | .6203 55850  | .0288 10979  | .4347 30647  |
| .9017  | .7843 82514  | .6202 77415  | .0289 54457  | .4348 33536  |
| .9018  | .7844 44538  | .6201 98974  | .0290 97946  | .4349 36438  |
| .9019  | .7845 06554  | .6201 20526  | .0292 41444  | .4350 39355  |
| 0.9020 | 0.7845 68562 | 0.6200 42072 | 1.0293 84953 | 1.4351 42286 |
| .9021  | .7846 30562  | .6199 63612  | .0295 28473  | .4352 45232  |
| .9022  | .7846 92555  | .6198 85146  | .0296 72002  | .4353 48192  |
| .9023  | .7847 54539  | .6199 06674  | .0298 15542  | .4354 51167  |
| .9024  | .7848 16516  | .6197 28195  | .0299 59093  | .4355 54155  |
| 0.9025 | 0.7848 78485 | 0.6196 49711 | 1.0301 02653 | 1.4356 57159 |
| .9026  | .7849 40446  | .6195 71220  | .0302 46224  | .4357 60176  |
| .9027  | .7850 02399  | .6194 92722  | .0303 89805  | .4358 63208  |
| .9028  | .7850 64345  | .6194 14219  | .0305 33397  | .4359 66254  |
| .9029  | .7851 26282  | .6193 35710  | .0306 76999  | .4360 69314  |
| 0.9030 | 0.7851 88212 | 0.6192 57194 | 1.0308 20611 | 1.4361 72389 |
| .9031  | .7852 50134  | .6191 78672  | .0309 64233  | .4362 75478  |
| .9032  | .7853 12048  | .6191 00144  | .0311 07866  | .4363 78582  |
| .9033  | .7853 73954  | .6190 21609  | .0312 51509  | .4364 81700  |
| .9034  | .7854 35852  | .6189 43069  | .0313 95162  | .4365 84832  |
| 0.9035 | 0.7854 97742 | 0.6188 64522 | 1.0315 38826 | 1.4366 87979 |
| .9036  | .7855 59625  | .6187 85969  | .0316 82500  | .4367 91140  |
| .9037  | .7856 21499  | .6187 07410  | .0318 26184  | .4368 94315  |
| .9038  | .7856 83366  | .6186 28845  | .0319 69879  | .4369 97505  |
| .9039  | .7857 45225  | .6185 50274  | .0321 13583  | .4371 00709  |
| 0.9040 | 0.7858 07076 | 0.6184 71696 | 1.0322 57299 | 1.4372 03928 |
| .9041  | .7858 68920  | .6183 93112  | .0324 01024  | .4373 07161  |
| .9042  | .7859 30755  | .6183 14522  | .0325 44760  | .4374 10408  |
| .9043  | .7859 92582  | .6182 35926  | .0326 88506  | .4375 13670  |
| .9044  | .7860 54402  | .6181 57324  | .0328 32263  | .4376 16946  |
| 0.9045 | 0.7861 16214 | 0.6180 78715 | 1.0329 76030 | 1.4377 20236 |
| .9046  | .7861 78018  | .6180 00101  | .0331 19807  | .4378 23541  |
| .9047  | .7862 39814  | .6179 21480  | .0332 63594  | .4379 26860  |
| .9048  | .7863 01602  | .6178 42853  | .0334 07392  | .4380 30194  |
| .9049  | .7863 63382  | .6177 64219  | .0335 51200  | .4381 33542  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.9050 | 0.7864 25155 | 0.6176 85580 | 1.0336 95019 | 1.4382 36904 |
| .9051  | .7864 86920  | .6176 06934  | .0338 38848  | .4383 40281  |
| .9052  | .7865 48376  | .6175 28283  | .0339 02637  | .4384 43672  |
| .9053  | .7866 10425  | .6174 49625  | .0341 26537  | .4385 47077  |
| .9054  | .7866 72166  | .6173 70960  | .0342 70396  | .4386 50497  |
| 0.9055 | 0.7867 33899 | 0.6172 92290 | 1.0344 14267 | 1.4387 53931 |
| .9056  | .7867 95625  | .6172 13614  | .0345 58147  | .4388 57380  |
| .9057  | .7868 57342  | .6171 34931  | .0347 02038  | .4389 60843  |
| .9058  | .7869 19052  | .6170 56242  | .0348 45939  | .4390 64320  |
| .9059  | .7869 80753  | .6169 77547  | .0349 89851  | .4391 67812  |
| 0.9060 | 0.7870 42447 | 0.6168 98846 | 1.0351 33773 | 1.4392 71318 |
| .9061  | .7871 04133  | .6168 20139  | .0352 77705  | .4393 74839  |
| .9062  | .7871 65811  | .6167 41425  | .0354 21648  | .4394 78374  |
| .9063  | .7872 27481  | .6166 62706  | .0355 65601  | .4395 81923  |
| .9064  | .7872 89144  | .6165 83980  | .0357 09564  | .4396 85487  |
| 0.9065 | 0.7873 50798 | 0.6165 05248 | 1.0358 53538 | 1.4397 89065 |
| .9066  | .7874 12445  | .6164 26510  | .0359 97522  | .4398 92658  |
| .9067  | .7874 74084  | .6163 47765  | .0361 41517  | .4399 96265  |
| .9068  | .7875 35714  | .6162 69015  | .0362 85521  | .4400 99886  |
| .9069  | .7875 97337  | .6161 90258  | .0364 29537  | .4402 03522  |
| 0.9070 | 0.7876 58952 | 0.6161 11495 | 1.0365 73562 | 1.4403 07172 |
| .9071  | .7877 20560  | .6160 32726  | .0367 17598  | .4404 10837  |
| .9072  | .7877 82159  | .6159 53951  | .0368 61644  | .4405 14515  |
| .9073  | .7878 43750  | .6158 75170  | .0370 05701  | .4406 18209  |
| .9074  | .7879 05334  | .6157 96382  | .0371 49768  | .4407 21917  |
| 0.9075 | 0.7879 66910 | 0.6157 17589 | 1.0372 93845 | 1.4408 25639 |
| .9076  | .7880 28478  | .6156 38789  | .0374 37933  | .4409 29375  |
| .9077  | .7880 90037  | .6155 59983  | .0375 82031  | .4410 33126  |
| .9078  | .7881 51590  | .6154 81171  | .0377 26140  | .4411 36892  |
| .9079  | .7882 13134  | .6154 02353  | .0378 70259  | .4412 40672  |
| 0.9080 | 0.7882 74670 | 0.6153 23528 | 1.0380 14388 | 1.4413 44466 |
| .9081  | .7883 36198  | .6152 44698  | .0381 58527  | .4414 48275  |
| .9082  | .7883 97719  | .6151 65861  | .0383 02677  | .4415 52098  |
| .9083  | .7884 59232  | .6150 87018  | .0384 46838  | .4416 55935  |
| .9084  | .7885 20736  | .6150 08169  | .0385 91009  | .4417 59787  |
| 0.9085 | 0.7885 82233 | 0.6149 29314 | 1.0387 35190 | 1.4418 63653 |
| .9086  | .7886 43722  | .6148 50453  | .0388 79381  | .4419 67534  |
| .9087  | .7887 05203  | .6147 71585  | .0390 23583  | .4420 71429  |
| .9088  | .7887 66677  | .6146 92712  | .0391 67796  | .4421 75339  |
| .9089  | .7888 28142  | .6146 13832  | .0393 12018  | .4422 79263  |
| 0.9090 | 0.7888 89599 | 0.6145 34946 | 1.0394 56252 | 1.4423 83201 |
| .9091  | .7889 51049  | .6144 56054  | .0396 00495  | .4424 87154  |
| .9092  | .7890 12491  | .6143 77156  | .0397 44749  | .4425 91121  |
| .9093  | .7890 73924  | .6142 98252  | .0398 89013  | .4426 95103  |
| .9094  | .7891 35350  | .6142 19341  | .0400 33288  | .4427 99099  |
| 0.9095 | 0.7891 96768 | 0.6141 40425 | 1.0401 77573 | 1.4429 03110 |
| .9096  | .7892 58178  | .6140 61502  | .0403 21869  | .4430 07135  |
| .9097  | .7893 19580  | .6139 82573  | .0404 66174  | .4431 11174  |
| .9098  | .7893 80975  | .6139 03638  | .0406 10491  | .4432 15228  |
| .9099  | .7894 42361  | .6138 24697  | .0407 54818  | .4433 19296  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.9100 | 0.7895 03740 | 0.6137 45749 | 1.0408 99155 | 1.4434 23379 |
| .9101  | .7895 65110  | .6136 66796  | .0410 43502  | .4435 27476  |
| .9102  | .7896 26473  | .6135 87836  | .0411 87860  | .4436 31587  |
| .9103  | .7896 87828  | .6135 08871  | .0413 32229  | .4437 35713  |
| .9104  | .7897 49175  | .6134 29899  | .0414 76607  | .4438 39854  |
| 0.9105 | 0.7898 10514 | 0.6133 50921 | 1.0416 20997 | 1.4439 44009 |
| .9106  | .7898 71845  | .6132 71937  | .0417 65396  | .4440 48178  |
| .9107  | .7899 33168  | .6131 92947  | .0419 09806  | .4441 52362  |
| .9108  | .7899 94484  | .6131 13950  | .0420 54227  | .4442 56560  |
| .9109  | .7900 55791  | .6130 34948  | .0421 98657  | .4443 60773  |
| 0.9110 | 0.7901 17091 | 0.6129 55939 | 1.0423 43099 | 1.4444 65000 |
| .9111  | .7901 78382  | .6128 76924  | .0424 87550  | .4445 69241  |
| .9112  | .7902 39666  | .6127 97903  | .0426 32013  | .4446 73497  |
| .9113  | .7903 00942  | .6127 18876  | .0427 76485  | .4447 77768  |
| .9114  | .7903 62210  | .6126 39843  | .0429 20968  | .4448 82053  |
| 0.9115 | 0.7904 23470 | 0.6125 60804 | 1.0430 65462 | 1.4449 86352 |
| .9116  | .7904 84722  | .6124 81758  | .0432 09965  | .4450 90662  |
| .9117  | .7905 45966  | .6124 02707  | .0433 54480  | .4451 94994  |
| .9118  | .7906 07202  | .6123 23649  | .0434 99004  | .4452 99337  |
| .9119  | .7906 68431  | .6122 44585  | .0436 43540  | .4454 03694  |
| 0.9120 | 0.7907 29651 | 0.6121 65516 | 1.0437 88085 | 1.4455 08065 |
| .9121  | .7907 90864  | .6120 86440  | .0439 32641  | .4456 12451  |
| .9122  | .7908 52069  | .6120 07357  | .0440 77208  | .4457 16652  |
| .9123  | .7909 13265  | .6119 28269  | .0442 21785  | .4458 21287  |
| .9124  | .7909 74454  | .6118 49175  | .0443 66372  | .4459 25696  |
| 0.9125 | 0.7910 35635 | 0.6117 70074 | 1.0445 10970 | 1.4460 30140 |
| .9126  | .7910 96808  | .6116 90968  | .0446 55578  | .4461 34598  |
| .9127  | .7911 57973  | .6116 11855  | .0448 00197  | .4462 39071  |
| .9128  | .7912 19131  | .6115 32736  | .0449 44826  | .4463 43558  |
| .9129  | .7912 80280  | .6114 53611  | .0450 89465  | .4464 48060  |
| 0.9130 | 0.7913 41421 | 0.6113 74480 | 1.0452 34115 | 1.4465 52576 |
| .9131  | .7914 02555  | .6112 95343  | .0453 78776  | .4466 57107  |
| .9132  | .7914 63680  | .6112 16199  | .0455 23447  | .4467 61652  |
| .9133  | .7915 24798  | .6111 37050  | .0456 68128  | .4468 66212  |
| .9134  | .7915 85908  | .6110 57894  | .0458 12820  | .4469 70786  |
| 0.9135 | 0.7916 47010 | 0.6109 78733 | 1.0459 57522 | 1.4470 75374 |
| .9136  | .7917 08104  | .6108 99565  | .0461 02235  | .4471 79977  |
| .9137  | .7917 69190  | .6108 20391  | .0462 46958  | .4472 84595  |
| .9138  | .7918 30268  | .6107 41211  | .0463 91692  | .4473 89227  |
| .9139  | .7918 91338  | .6106 62025  | .0465 36436  | .4474 93873  |
| 0.9140 | 0.7919 52400 | 0.6105 82833 | 1.0466 81191 | 1.4475 98534 |
| .9141  | .7920 13454  | .6105 03635  | .0468 25956  | .4477 03209  |
| .9142  | .7920 74501  | .6104 24430  | .0469 70731  | .4478 07899  |
| .9143  | .7921 35539  | .6103 45220  | .0471 15517  | .4479 12603  |
| .9144  | .7921 96570  | .6102 66003  | .0472 60314  | .4480 17322  |
| 0.9145 | 0.7922 57593 | 0.6101 86780 | 1.0474 05121 | 1.4481 22055 |
| .9146  | .7923 18607  | .6101 07552  | .0475 49938  | .4482 26803  |
| .9147  | .7923 79614  | .6100 28317  | .0476 94766  | .4483 31565  |
| .9148  | .7924 40613  | .6099 49076  | .0478 39605  | .4484 36342  |
| .9149  | .7925 01604  | .6098 69829  | .0479 84454  | .4485 41133  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 0.9150 | 0.7925 62587 | 0.6097 90575 | 1.0481 29313 | 1.4486 45939 |
| .9151  | .7926 23562  | .6097 11316  | .0482 74183  | .4487 50759  |
| .9152  | .7926 84529  | .6096 32051  | .0484 19063  | .4488 55594  |
| .9153  | .7927 45488  | .6095 52779  | .0485 63954  | .4489 60443  |
| .9154  | .7928 06440  | .6094 73502  | .0487 08855  | .4490 65307  |
| 0.9155 | 0.7928 67383 | 0.6093 94218 | 1.0488 53767 | 1.4481 70185 |
| .9156  | .7929 28319  | .6093 14928  | .0489 98689  | .4492 75077  |
| .9157  | .7929 89246  | .6092 35632  | .0491 43622  | .4493 79984  |
| .9158  | .7930 50166  | .6091 56330  | .0492 88565  | .4494 84906  |
| .9159  | .7931 11077  | .6090 77022  | .0494 33519  | .4495 89842  |
| 0.9160 | 0.7931 71981 | 0.6089 97708 | 1.0495 78483 | 1.4486 94793 |
| .9161  | .7932 32877  | .6089 18388  | .0497 23458  | .4497 99758  |
| .9162  | .7932 93765  | .6088 39062  | .0498 68443  | .4499 04737  |
| .9163  | .7933 54645  | .6087 59729  | .0500 13439  | .4500 09732  |
| .9164  | .7934 15517  | .6086 80391  | .0501 58445  | .4501 14740  |
| 0.9165 | 0.7934 76381 | 0.6086 01046 | 1.0503 03462 | 1.4502 19763 |
| .9166  | .7935 37237  | .6085 21695  | .0504 48489  | .4503 24801  |
| .9167  | .7935 98085  | .6084 42339  | .0505 93527  | .4504 29853  |
| .9168  | .7936 58925  | .6083 62976  | .0507 38575  | .4505 34920  |
| .9169  | .7937 19758  | .6082 83607  | .0508 83634  | .4506 40001  |
| 0.9170 | 0.7937 80582 | 0.6082 04232 | 1.0510 28703 | 1.4507 45096 |
| .9171  | .7938 41399  | .6081 24851  | .0511 73783  | .4508 50206  |
| .9172  | .7939 02207  | .6080 45463  | .0513 18873  | .4509 55331  |
| .9173  | .7939 63008  | .6079 66070  | .0514 63974  | .4510 60470  |
| .9174  | .7940 23800  | .6078 86671  | .0516 09085  | .4511 65624  |
| 0.9175 | 0.7940 84585 | 0.6078 07265 | 1.0517 54207 | 1.4512 70792 |
| .9176  | .7941 45362  | .6077 27854  | .0518 99339  | .4513 75975  |
| .9177  | .7942 06131  | .6076 48436  | .0520 44482  | .4514 81172  |
| .9178  | .7942 66891  | .6075 69013  | .0521 89636  | .4515 86384  |
| .9179  | .7943 27644  | .6074 89583  | .0523 34799  | .4516 91610  |
| 0.9180 | 0.7943 88389 | 0.6074 10147 | 1.0524 79974 | 1.4517 96851 |
| .9181  | .7944 49126  | .6073 30705  | .0526 25159  | .4519 02106  |
| .9182  | .7945 09855  | .6072 51257  | .0527 70354  | .4520 07376  |
| .9183  | .7945 70577  | .6071 71803  | .0529 15560  | .4521 12660  |
| .9184  | .7946 31290  | .6070 92343  | .0530 60777  | .4522 17959  |
| 0.9185 | 0.7946 91995 | 0.6070 12877 | 1.0532 06004 | 1.4523 23272 |
| .9186  | .7947 52692  | .6069 33405  | .0533 51241  | .4524 28600  |
| .9187  | .7948 13382  | .6068 53927  | .0534 96490  | .4525 33942  |
| .9188  | .7948 74063  | .6067 74442  | .0536 41748  | .4526 39299  |
| .9189  | .7949 34737  | .6066 94952  | .0537 87017  | .4527 44671  |
| 0.9190 | 0.7949 95402 | 0.6066 15455 | 1.0539 32297 | 1.4528 50057 |
| .9191  | .7950 56060  | .6065 35953  | .0540 77587  | .4529 55457  |
| .9192  | .7951 16709  | .6064 56444  | .0542 22888  | .4530 60872  |
| .9193  | .7951 77351  | .6063 76929  | .0543 68200  | .4531 66302  |
| .9194  | .7952 37985  | .6062 97409  | .0545 13522  | .4532 71746  |
| 0.9195 | 0.7952 98611 | 0.6062 17882 | 1.0546 58854 | 1.4533 77204 |
| .9196  | .7953 59228  | .6061 38349  | .0548 04197  | .4534 82678  |
| .9197  | .7954 19838  | .6060 58810  | .0549 49550  | .4535 88165  |
| .9198  | .7954 80440  | .6059 79265  | .0550 94915  | .4536 93667  |
| .9199  | .7955 41034  | .6058 99714  | .0552 40289  | .4537 99184  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.9200 | 0.7956 01620 | 0.6058 20157 | 1.0553 85674 | 1.4539 04716 |
| .9201  | .7956 62198  | .6057 40593  | .0555 31070  | .4540 10261  |
| .9202  | .7957 22768  | .6056 61024  | .0556 76476  | .4541 15822  |
| .9203  | .7957 83330  | .6055 81449  | .0558 21893  | .4542 21397  |
| .9204  | .7958 43884  | .6055 01868  | .0559 67321  | .4543 26986  |
| 0.9205 | 0.7959 04431 | 0.6054 22280 | 1.0561 12759 | 1.4544 32590 |
| .9206  | .7959 64969  | .6053 42687  | .0562 58207  | .4545 38209  |
| .9207  | .7960 25499  | .6052 63087  | .0564 03666  | .4546 43842  |
| .9208  | .7960 86022  | .6051 83482  | .0565 49136  | .4547 49489  |
| .9209  | .7961 46536  | .6051 03870  | .0566 94616  | .4548 55152  |
| 0.9210 | 0.7962 07042 | 0.6050 24252 | 1.0568 40107 | 1.4549 60828 |
| .9211  | .7962 67541  | .6049 44629  | .0569 85608  | .4550 66520  |
| .9212  | .7963 28031  | .6048 64999  | .0571 31120  | .4551 72225  |
| .9213  | .7963 88514  | .6047 85363  | .0572 76643  | .4552 77944  |
| .9214  | .7964 48988  | .6047 05721  | .0574 22176  | .4553 83681  |
| 0.9215 | 0.7965 09455 | 0.6046 26073 | 1.0575 67720 | 1.4554 89430 |
| .9216  | .7965 69914  | .6045 46419  | .0577 13274  | .4555 95194  |
| .9217  | .7966 30364  | .6044 66759  | .0578 58839  | .4557 00973  |
| .9218  | .7966 90807  | .6043 87093  | .0580 04414  | .4558 06766  |
| .9219  | .7967 51242  | .6043 07421  | .0581 50000  | .4559 12574  |
| 0.9220 | 0.7968 11668 | 0.6042 27743 | 1.0582 95597 | 1.4560 18396 |
| .9221  | .7968 72087  | .6041 48059  | .0584 41204  | .4561 24233  |
| .9222  | .7969 32498  | .6040 68368  | .0585 86821  | .4562 30084  |
| .9223  | .7969 92901  | .6039 88672  | .0587 32450  | .4563 35950  |
| .9224  | .7970 53296  | .6039 08970  | .0588 78089  | .4564 41831  |
| 0.9225 | 0.7971 13683 | 0.6038 29261 | 1.0590 23738 | 1.4565 47726 |
| .9226  | .7971 74062  | .6037 49547  | .0591 69398  | .4566 53636  |
| .9227  | .7972 34433  | .6036 69827  | .0593 15069  | .4567 59560  |
| .9228  | .7972 94796  | .6035 90100  | .0594 60750  | .4568 65499  |
| .9229  | .7973 55151  | .6035 10368  | .0596 06442  | .4569 71452  |
| 0.9230 | 0.7974 15498 | 0.6034 30629 | 1.0597 52144 | 1.4570 77420 |
| .9231  | .7974 75837  | .6033 50885  | .0598 97857  | .4571 83402  |
| .9232  | .7975 36168  | .6032 71134  | .0600 43581  | .4572 89399  |
| .9233  | .7975 96491  | .6031 91377  | .0601 89315  | .4573 95411  |
| .9234  | .7976 56806  | .6031 11615  | .0603 35060  | .4575 01437  |
| 0.9235 | 0.7977 17113 | 0.6030 31846 | 1.0604 80816 | 1.4576 07478 |
| .9236  | .7977 77412  | .6029 52071  | .0606 26582  | .4577 13533  |
| .9237  | .7978 37704  | .6028 72291  | .0607 72358  | .4578 19603  |
| .9238  | .7978 97987  | .6027 92504  | .0609 18146  | .4579 25688  |
| .9239  | .7979 58262  | .6027 12711  | .0610 63943  | .4580 31787  |
| 0.9240 | 0.7980 18529 | 0.6026 32912 | 1.0612 09752 | 1.4581 37901 |
| .9241  | .7980 78789  | .6025 53107  | .0613 55571  | .4582 44029  |
| .9242  | .7981 39040  | .6024 73296  | .0615 01401  | .4583 50172  |
| .9243  | .7981 99283  | .6023 93479  | .0616 47241  | .4584 56329  |
| .9244  | .7982 59519  | .6023 13656  | .0617 93092  | .4585 62501  |
| 0.9245 | 0.7983 19746 | 0.6022 33828 | 1.0619 38954 | 1.4586 68688 |
| .9246  | .7983 79965  | .6021 53993  | .0620 84826  | .4587 74889  |
| .9247  | .7984 40177  | .6020 74152  | .0622 30709  | .4588 81105  |
| .9248  | .7985 00380  | .6019 94304  | .0623 76602  | .4589 87335  |
| .9249  | .7985 60576  | .6019 14451  | .0625 22506  | .4590 93580  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.9250 | 0.7986 20763 | 0.6018 34592 | 1.0626 68421 | 1.4591 99340 |
| .9251  | .7986 80943  | .6017 54727  | .0628 14346  | .4593 06114  |
| .9252  | .7987 41114  | .6016 74856  | .0629 60282  | .4594 12403  |
| .9253  | .7988 01278  | .6015 94979  | .0631 06228  | .4595 18706  |
| .9254  | .7988 61433  | .6015 15096  | .0632 52186  | .4596 25024  |
| 0.9255 | 0.7989 21581 | 0.6014 35207 | 1.0633 98153 | 1.4597 31356 |
| .9256  | .7989 81720  | .6013 55312  | .0635 44132  | .4598 37703  |
| .9257  | .7990 41852  | .6012 75410  | .0636 90121  | .4599 44065  |
| .9258  | .7991 01975  | .6011 95503  | .0638 36121  | .4600 50441  |
| .9259  | .7991 62091  | .6011 15590  | .0639 82131  | .4601 56832  |
| 0.9260 | 0.7992 22193 | 0.6010 35671 | 1.0641 28152 | 1.4602 63238 |
| .9261  | .7992 82298  | .6009 55746  | .0642 74184  | .4603 69658  |
| .9262  | .7993 42390  | .6008 75814  | .0644 20226  | .4604 76093  |
| .9263  | .7994 02473  | .6007 95877  | .0645 66279  | .4605 82542  |
| .9264  | .7994 62549  | .6007 15934  | .0647 12342  | .4606 89006  |
| 0.9265 | 0.7995 22616 | 0.6006 35985 | 1.0648 53417 | 1.4607 95485 |
| .9266  | .7995 82676  | .6005 56029  | .0650 04502  | .4609 01978  |
| .9267  | .7996 42728  | .6004 76068  | .0651 50597  | .4610 08485  |
| .9268  | .7997 02771  | .6003 96101  | .0652 96703  | .4611 15008  |
| .9269  | .7997 62807  | .6003 16128  | .0654 42820  | .4612 21545  |
| 0.9270 | 0.7998 22834 | 0.6002 36148 | 1.0655 88948 | 1.4613 28096 |
| .9271  | .7998 82854  | .6001 56163  | .0657 35086  | .4614 34633  |
| .9272  | .7999 42866  | .6000 76172  | .0658 81235  | .4615 41243  |
| .9273  | .8000 02869  | .5999 96174  | .0660 27394  | .4616 47839  |
| .9274  | .8000 62865  | .5999 16171  | .0661 73564  | .4617 54449  |
| 0.9275 | 0.8001 22852 | 0.5998 36162 | 1.0663 19745 | 1.4618 61074 |
| .9276  | .8001 82832  | .5997 56147  | .0664 65936  | .4619 67713  |
| .9277  | .8002 42804  | .5996 76125  | .0666 12138  | .4620 74367  |
| .9278  | .8003 02767  | .5995 96098  | .0667 58351  | .4621 81035  |
| .9279  | .8003 62723  | .5995 16065  | .0669 04575  | .4622 87718  |
| 0.9280 | 0.8004 22670 | 0.5994 36025 | 1.0670 50809 | 1.4623 94416 |
| .9281  | .8004 82610  | .5993 55980  | .0671 97054  | .4625 01129  |
| .9282  | .8005 42542  | .5992 75929  | .0673 43309  | .4626 07856  |
| .9283  | .8006 02465  | .5991 95872  | .0674 89575  | .4627 14597  |
| .9284  | .8006 62381  | .5991 15808  | .0676 35852  | .4628 21353  |
| 0.9285 | 0.8007 22288 | 0.5990 35739 | 1.0677 82139 | 1.4629 28124 |
| .9286  | .8007 82188  | .5989 55664  | .0679 28438  | .4630 34910  |
| .9287  | .8008 42080  | .5988 75583  | .0680 74746  | .4631 41710  |
| .9288  | .8009 01963  | .5987 95496  | .0682 21066  | .4632 48525  |
| .9289  | .8009 61839  | .5987 15402  | .0683 67396  | .4633 55354  |
| 0.9290 | 0.8010 21706 | 0.5986 35303 | 1.0685 13737 | 1.4634 62198 |
| .9291  | .8010 81566  | .5985 55198  | .0686 60088  | .4635 69057  |
| .9292  | .8011 41417  | .5984 75087  | .0688 06451  | .4636 75930  |
| .9293  | .8012 01261  | .5983 94970  | .0689 52824  | .4637 82818  |
| .9294  | .8012 61096  | .5983 14847  | .0690 99207  | .4638 89721  |
| 0.9295 | 0.8013 20924 | 0.5982 34718 | 1.0692 45602 | 1.4639 96638 |
| .9296  | .8013 80743  | .5981 54582  | .0693 92007  | .4641 03570  |
| .9297  | .8014 40555  | .5980 74441  | .0695 38422  | .4642 10517  |
| .9298  | .8015 00358  | .5979 94294  | .0696 84849  | .4643 17478  |
| .9299  | .8015 60153  | .5979 14141  | .0698 31286  | .4644 24454  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.9350 | 0.8045 99078 | 0.5938 18426 | 1.0773 13796 | 1.4698 99662 |
| .9351  | .8046 58456  | .5937 37963  | .0774 60791  | .4700 07400  |
| .9352  | .8047 17826  | .5936 57495  | .0776 07798  | .4701 15154  |
| .9353  | .8047 77187  | .5935 77020  | .0777 54814  | .4702 22922  |
| .9354  | .8048 36541  | .5934 96539  | .0779 01842  | .4703 30705  |
| 0.9355 | 0.8048 95887 | 0.5934 16053 | 1.0780 48881 | 1.4704 38502 |
| .9356  | .8049 55224  | .5933 35560  | .0781 95930  | .4705 46315  |
| .9357  | .8050 14554  | .5932 55062  | .0783 42990  | .4706 54141  |
| .9358  | .8050 73875  | .5931 74557  | .0784 90061  | .4707 61983  |
| .9359  | .8051 33189  | .5930 94047  | .0786 37142  | .4708 69839  |
| 0.9360 | 0.8051 92494 | 0.5930 13531 | 1.0787 84235 | 1.4709 77711 |
| .9361  | .8052 51791  | .5929 33008  | .0789 31338  | .4710 85596  |
| .9362  | .8053 11081  | .5928 52480  | .0790 78452  | .4711 93497  |
| .9363  | .8053 70362  | .5927 71946  | .0792 25577  | .4713 01412  |
| .9364  | .8054 29635  | .5926 91406  | .0793 72712  | .4714 09342  |
| 0.9365 | 0.8054 88900 | 0.5926 10860 | 1.0795 19858 | 1.4715 17287 |
| .9366  | .8055 48157  | .5925 30308  | .0796 67016  | .4716 25246  |
| .9367  | .8056 07406  | .5924 49751  | .0798 14183  | .4717 33220  |
| .9368  | .8056 66647  | .5923 69187  | .0799 61362  | .4718 41209  |
| .9369  | .8057 25880  | .5922 88617  | .0801 08552  | .4719 49212  |
| 0.9370 | 0.8057 85105 | 0.5922 08042 | 1.0802 55752 | 1.4720 57230 |
| .9371  | .8058 44322  | .5921 27460  | .0804 02963  | .4721 65263  |
| .9372  | .8059 03530  | .5920 46873  | .0805 50185  | .4722 73311  |
| .9373  | .8059 62731  | .5919 66279  | .0806 97418  | .4723 81373  |
| .9374  | .8060 21924  | .5918 85680  | .0808 44661  | .4724 89451  |
| 0.9375 | 0.8060 81108 | 0.5918 05075 | 1.0809 91916 | 1.4725 97542 |
| .9376  | .8061 40285  | .5917 24464  | .0811 39181  | .4727 05649  |
| .9377  | .8061 99453  | .5916 43847  | .0812 86457  | .4728 13770  |
| .9378  | .8062 58614  | .5915 63224  | .0814 33744  | .4729 21906  |
| .9379  | .8063 17766  | .5914 82595  | .0815 81041  | .4730 30057  |
| 0.9380 | 0.8063 76910 | 0.5914 01961 | 1.0817 28350 | 1.4731 38222 |
| .9381  | .8064 36046  | .5913 21320  | .0818 75669  | .4732 46403  |
| .9382  | .8064 95174  | .5912 40673  | .0820 22999  | .4733 54598  |
| .9383  | .8065 54294  | .5911 60021  | .0821 70340  | .4734 62807  |
| .9384  | .8066 13406  | .5910 79365  | .0823 17691  | .4735 71032  |
| 0.9385 | 0.8066 72510 | 0.5909 98698 | 1.0824 65054 | 1.4736 79271 |
| .9386  | .8067 31606  | .5909 18028  | .0826 12427  | .4737 87525  |
| .9387  | .8067 90694  | .5908 37352  | .0827 59811  | .4738 95793  |
| .9388  | .8068 49774  | .5907 56670  | .0829 07206  | .4740 04077  |
| .9389  | .8069 08845  | .5906 75982  | .0830 54612  | .4741 12375  |
| 0.9390 | 0.8069 67909 | 0.5905 95288 | 1.0832 02029 | 1.4742 20688 |
| .9391  | .8070 26964  | .5905 14588  | .0833 49456  | .4743 29015  |
| .9392  | .8070 86012  | .5904 33883  | .0834 96895  | .4744 37357  |
| .9393  | .8071 45051  | .5903 53171  | .0836 44344  | .4745 45714  |
| .9394  | .8072 04082  | .5902 72454  | .0837 91804  | .4746 54086  |
| 0.9395 | 0.8072 63105 | 0.5901 91730 | 1.0839 39275 | 1.4747 62473 |
| .9396  | .8073 22121  | .5901 11001  | .0840 86756  | .4748 70874  |
| .9397  | .8073 81128  | .5900 30266  | .0842 34249  | .4749 79290  |
| .9398  | .8074 40127  | .5899 49525  | .0843 81752  | .4750 87721  |
| .9399  | .8074 99118  | .5898 68778  | .0845 29266  | .4751 96167  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.9400 | 0.8075 58100 | 0.5897 88025 | 1.0846 76791 | 1.4753 04627 |
| .9401  | .8076 17075  | .5897 07266  | .0848 24327  | .4754 13102  |
| .9402  | .8076 76042  | .5896 26502  | .0849 71874  | .4755 21592  |
| .9403  | .8077 35000  | .5895 45731  | .0851 19432  | .4756 30096  |
| .9404  | .8077 93951  | .5894 64955  | .0852 67000  | .4757 38616  |
| 0.9405 | 0.8078 52893 | 0.5893 84172 | 1.0854 14579 | 1.4758 47150 |
| .9406  | .8079 11828  | .5893 03384  | .0855 62170  | .4759 55699  |
| .9407  | .8079 70754  | .5892 22590  | .0857 09771  | .4760 64262  |
| .9408  | .8080 29672  | .5891 41790  | .0858 57382  | .4761 72840  |
| .9409  | .8080 88582  | .5890 60984  | .0860 05005  | .4762 81434  |
| 0.9410 | 0.8081 47485 | 0.5889 80172 | 1.0861 52639 | 1.4763 90041 |
| .9411  | .8082 06379  | .5888 99354  | .0863 00283  | .4764 98664  |
| .9412  | .8082 65264  | .5888 18531  | .0864 47938  | .4766 07302  |
| .9413  | .8083 24142  | .5887 37701  | .0865 95605  | .4767 15954  |
| .9414  | .8083 83012  | .5886 56866  | .0867 43282  | .4768 24621  |
| 0.9415 | 0.8084 41874 | 0.5885 76025 | 1.0868 90970 | 1.4769 33302 |
| .9416  | .8085 00727  | .5884 95178  | .0870 38668  | .4770 41999  |
| .9417  | .8085 59573  | .5884 14325  | .0871 86378  | .4771 50710  |
| .9418  | .8086 18410  | .5883 33466  | .0873 34098  | .4772 59436  |
| .9419  | .8086 77239  | .5882 52601  | .0874 81830  | .4773 68177  |
| 0.9420 | 0.8087 36061 | 0.5881 71730 | 1.0876 29572 | 1.4774 76932 |
| .9421  | .8087 94874  | .5880 90854  | .0877 77325  | .4775 85703  |
| .9422  | .8088 53679  | .5880 09971  | .0879 25089  | .4776 94488  |
| .9423  | .8089 12476  | .5879 29083  | .0880 72864  | .4778 03288  |
| .9424  | .8089 71265  | .5878 48189  | .0882 20650  | .4779 12103  |
| 0.9425 | 0.8090 30045 | 0.5877 67289 | 1.0883 68447 | 1.4780 20932 |
| .9426  | .8090 88818  | .5876 86383  | .0885 16254  | .4781 29776  |
| .9427  | .8091 47583  | .5876 05471  | .0886 64072  | .4782 38635  |
| .9428  | .8092 06339  | .5875 24553  | .0888 11902  | .4783 47509  |
| .9429  | .8092 65088  | .5874 43630  | .0889 59742  | .4784 56398  |
| 0.9430 | 0.8093 23828 | 0.5873 62700 | 1.0891 07593 | 1.4785 65301 |
| .9431  | .8093 82560  | .5872 81765  | .0892 55455  | .4786 74219  |
| .9432  | .8094 41284  | .5872 00824  | .0894 03228  | .4787 83152  |
| .9433  | .8095 00000  | .5871 19877  | .0895 51123  | .4788 92100  |
| .9434  | .8095 58708  | .5870 38924  | .0896 99106  | .4790 01062  |
| 0.9435 | 0.8096 17408 | 0.5869 57965 | 1.0898 47012 | 1.4791 10040 |
| .9436  | .8096 76100  | .5868 77000  | .0899 94928  | .4792 19032  |
| .9437  | .8097 34783  | .5867 96030  | .0901 42856  | .4793 28039  |
| .9438  | .8097 93459  | .5867 15053  | .0902 90794  | .4794 37060  |
| .9439  | .8098 52126  | .5866 34071  | .0904 38743  | .4795 46097  |
| 0.9440 | 0.8099 10786 | 0.5865 53083 | 1.0905 86703 | 1.4796 55148 |
| .9441  | .8099 69437  | .5864 72089  | .0907 34674  | .4797 64214  |
| .9442  | .8100 28080  | .5863 91089  | .0908 82656  | .4798 73295  |
| .9443  | .8100 86715  | .5863 10083  | .0910 30649  | .4799 82391  |
| .9444  | .8101 45342  | .5862 29072  | .0911 78652  | .4800 91501  |
| 0.9445 | 0.8102 03961 | 0.5861 48054 | 1.0913 26667 | 1.4802 00626 |
| .9446  | .8102 62572  | .5860 67031  | .0914 74693  | .4803 09766  |
| .9447  | .8103 21174  | .5859 86002  | .0916 22729  | .4804 18921  |
| .9448  | .8103 79769  | .5859 04967  | .0917 70776  | .4805 28091  |
| .9449  | .8104 38355  | .5858 23926  | .0919 18835  | .4806 37275  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.9450 | 0.8104 96934 | 0.5857 42879 | 1.0920 66904 | 1.4807 48475 |
| .9451  | .8105 55504  | .5856 61826  | .0922 14984  | .4808 55689  |
| .9452  | .8106 14066  | .5855 80768  | .0923 63075  | .4809 64918  |
| .9453  | .8106 72620  | .5854 99704  | .0925 11177  | .4810 74161  |
| .9454  | .8107 31166  | .5854 18633  | .0926 59290  | .4811 83420  |
| 0.9455 | 0.8107 89704 | 0.5853 37557 | 1.0928 07414 | 1.4812 92693 |
| .9456  | .8108 48234  | .5852 56475  | .0929 55548  | .4814 01981  |
| .9457  | .8109 06755  | .5851 75388  | .0931 03694  | .4815 11284  |
| .9458  | .8109 65269  | .5850 94294  | .0932 51851  | .4816 20602  |
| .9459  | .8110 23774  | .5850 13195  | .0934 00018  | .4817 29935  |
| 0.9460 | 0.8110 82271 | 0.5849 32089 | 1.0935 48197 | 1.4818 39282 |
| .9461  | .8111 40760  | .5848 50978  | .0936 96386  | .4819 48644  |
| .9462  | .8111 99242  | .5847 69861  | .0938 44586  | .4820 58021  |
| .9463  | .8112 57714  | .5846 88738  | .0939 92798  | .4821 67413  |
| .9464  | .8113 16179  | .5846 07610  | .0941 41020  | .4822 76820  |
| 0.9465 | 0.8113 74636 | 0.5845 26475 | 1.0942 89253 | 1.4823 86242 |
| .9466  | .8114 33085  | .5844 45335  | .0944 37497  | .4824 95678  |
| .9467  | .8114 91525  | .5843 64188  | .0945 85752  | .4826 05129  |
| .9468  | .8115 49957  | .5842 83036  | .0947 34018  | .4827 14595  |
| .9469  | .8116 08382  | .5842 01879  | .0948 82295  | .4828 24076  |
| 0.9470 | 0.8116 66798 | 0.5841 20715 | 1.0950 30583 | 1.4829 33572 |
| .9471  | .8117 25206  | .5840 39545  | .0951 78882  | .4830 43082  |
| .9472  | .8117 83606  | .5839 58370  | .0953 27192  | .4831 52607  |
| .9473  | .8118 41997  | .5838 77188  | .0954 75512  | .4832 62147  |
| .9474  | .8119 00381  | .5837 96001  | .0956 23844  | .4833 71702  |
| 0.9475 | 0.8119 58757 | 0.5837 14808 | 1.0957 72187 | 1.4834 81272 |
| .9476  | .8120 17124  | .5836 33610  | .0959 20540  | .4835 90857  |
| .9477  | .8120 75483  | .5835 52405  | .0960 68905  | .4837 00456  |
| .9478  | .8121 33835  | .5834 71194  | .0962 17280  | .4838 10071  |
| .9479  | .8121 92178  | .5833 89978  | .0963 65667  | .4839 19700  |
| 0.9480 | 0.8122 50513 | 0.5833 08756 | 1.0965 14064 | 1.4840 29344 |
| .9481  | .8123 08839  | .5832 27528  | .0966 62473  | .4841 39003  |
| .9482  | .8123 67158  | .5831 46294  | .0968 10892  | .4842 48676  |
| .9483  | .8124 25469  | .5830 65055  | .0969 59322  | .4843 58365  |
| .9484  | .8124 83771  | .5829 83809  | .0971 07764  | .4844 68068  |
| 0.9485 | 0.8125 42065 | 0.5829 02558 | 1.0972 56216 | 1.4845 77786 |
| .9486  | .8126 00352  | .5828 21301  | .0974 04679  | .4846 87519  |
| .9487  | .8126 58630  | .5827 40038  | .0975 53154  | .4847 97267  |
| .9488  | .8127 16900  | .5826 58769  | .0977 01639  | .4849 07030  |
| .9489  | .8127 75161  | .5825 77494  | .0978 50135  | .4850 16808  |
| 0.9490 | 0.8128 33415 | 0.5824 96214 | 1.0979 98642 | 1.4851 26600 |
| .9491  | .8128 91661  | .5824 14928  | .0981 47160  | .4852 36407  |
| .9492  | .8129 49898  | .5823 33636  | .0982 95689  | .4853 46229  |
| .9493  | .8130 08127  | .5822 52338  | .0984 44229  | .4854 56066  |
| .9494  | .8130 66349  | .5821 71034  | .0985 92781  | .4855 65918  |
| 0.9495 | 0.8131 24562 | 0.5820 89724 | 1.0987 41343 | 1.4856 75785 |
| .9496  | .8131 82766  | .5820 08409  | .0988 89916  | .4857 85667  |
| .9497  | .8132 40963  | .5819 27088  | .0990 38500  | .4858 95563  |
| .9498  | .8132 99152  | .5818 45761  | .0991 87095  | .4860 05474  |
| .9499  | .8133 57332  | .5817 64428  | .0993 35701  | .4861 15400  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.9500 | 0.8134 15505 | 0.5816 83089 | 1.0994 84318 | 1.4862 25341 |
| .9501  | .8134 73669  | .5816 01745  | .0996 32946  | .4863 35297  |
| .9502  | .8135 31825  | .5815 20395  | .0997 81585  | .4864 45268  |
| .9503  | .8135 89973  | .5814 39039  | .0999 30235  | .4865 55254  |
| .9504  | .8136 48113  | .5813 57677  | .1000 78896  | .4866 65254  |
| 0.9505 | 0.8137 06245 | 0.5812 76309 | 1.1002 27568 | 1.4867 75269 |
| .9506  | .8137 64368  | .5811 94935  | .1003 76251  | .4868 85300  |
| .9507  | .8138 22484  | .5811 13556  | .1005 24945  | .4869 95345  |
| .9508  | .8138 80591  | .5810 32171  | .1006 73650  | .4871 05405  |
| .9509  | .8139 38690  | .5809 50780  | .1008 22366  | .4872 15479  |
| 0.9510 | 0.8139 96781 | 0.5808 69383 | 1.1009 71093 | 1.4873 25569 |
| .9511  | .8140 54864  | .5807 87981  | .1011 19831  | .4874 35674  |
| .9512  | .8141 12939  | .5807 06572  | .1012 68580  | .4875 45793  |
| .9513  | .8141 71005  | .5806 25158  | .1014 17340  | .4876 55927  |
| .9514  | .8142 29064  | .5805 43738  | .1015 66112  | .4877 66076  |
| 0.9515 | 0.8142 87114 | 0.5804 62312 | 1.1017 14894 | 1.4878 76240 |
| .9516  | .8143 45156  | .5803 80881  | .1018 63687  | .4879 86419  |
| .9517  | .8144 03190  | .5802 99443  | .1020 12491  | .4880 96613  |
| .9518  | .8144 61216  | .5802 18000  | .1021 61306  | .4882 06822  |
| .9519  | .8145 19234  | .5801 36551  | .1023 10132  | .4883 17045  |
| 0.9520 | 0.8145 77243 | 0.5800 55096 | 1.1024 58970 | 1.4884 27284 |
| .9521  | .8146 35245  | .5799 73636  | .1026 07818  | .4885 37537  |
| .9522  | .8146 93238  | .5798 92169  | .1027 56677  | .4886 47806  |
| .9523  | .8147 51223  | .5798 10697  | .1029 05547  | .4887 58089  |
| .9524  | .8148 09200  | .5797 29219  | .1030 54429  | .4888 68387  |
| 0.9525 | 0.8148 67169 | 0.5796 47735 | 1.1032 03321 | 1.4889 78699 |
| .9526  | .8149 25130  | .5795 66245  | .1033 52224  | .4890 89027  |
| .9527  | .8149 83082  | .5794 84750  | .1035 01139  | .4891 99370  |
| .9528  | .8150 41027  | .5794 03249  | .1036 50064  | .4893 09728  |
| .9529  | .8150 98963  | .5793 21742  | .1037 99001  | .4894 20100  |
| 0.9530 | 0.8151 56891 | 0.5792 40229 | 1.1039 47948 | 1.4895 30487 |
| .9531  | .8152 14811  | .5791 58710  | .1040 96907  | .4896 40890  |
| .9532  | .8152 72723  | .5790 77186  | .1042 45877  | .4897 51307  |
| .9533  | .8153 30626  | .5789 95656  | .1043 94857  | .4898 61739  |
| .9534  | .8153 88522  | .5789 14120  | .1045 43849  | .4899 72186  |
| 0.9535 | 0.8154 46409 | 0.5788 32578 | 1.1046 92852 | 1.4900 82647 |
| .9536  | .8155 04288  | .5787 51031  | .1048 41865  | .4901 93124  |
| .9537  | .8155 62159  | .5786 69477  | .1049 90890  | .4903 03616  |
| .9538  | .8156 20022  | .5785 87918  | .1051 39926  | .4904 14122  |
| .9539  | .8156 77877  | .5785 06353  | .1052 88973  | .4905 24644  |
| 0.9540 | 0.8157 35724 | 0.5784 24783 | 1.1054 38031 | 1.4906 35180 |
| .9541  | .8157 93562  | .5783 43206  | .1055 87100  | .4907 45731  |
| .9542  | .8158 51392  | .5782 61624  | .1057 36180  | .4908 56298  |
| .9543  | .8159 09214  | .5781 80036  | .1058 85271  | .4909 66879  |
| .9544  | .8159 67028  | .5780 98442  | .1060 34374  | .4910 77475  |
| 0.9545 | 0.8160 24834 | 0.5780 16843 | 1.1061 83487 | 1.4911 88086 |
| .9546  | .8160 82632  | .5779 35237  | .1063 32611  | .4912 98711  |
| .9547  | .8161 40421  | .5778 53626  | .1064 81747  | .4914 09352  |
| .9548  | .8161 98202  | .5777 72009  | .1066 30893  | .4915 20008  |
| .9549  | .8162 55975  | .5776 90386  | .1067 80051  | .4916 30678  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.9550 | 0.8163 13740 | 0.5776 08758 | 1.1069 29219 | 1.4917 41364 |
| .9551  | .8163 71497  | .5775 27124  | .1070 78399  | .4918 52064  |
| .9552  | .8164 29246  | .5774 45484  | .1072 27590  | .4919 62779  |
| .9553  | .8164 86986  | .5773 63858  | .1073 76791  | .4920 73510  |
| .9554  | .8165 44719  | .5772 82186  | .1075 26004  | .4921 84235  |
| 0.9555 | 0.8166 02443 | 0.5772 00529 | 1.1076 75228 | 1.4922 95015 |
| .9556  | .8166 60159  | .5771 18366  | .1073 24463  | .4924 05790  |
| .9557  | .8167 17867  | .5770 37197  | .1075 73709  | .4925 16580  |
| .9558  | .8167 75566  | .5769 55522  | .1081 22967  | .4926 27385  |
| .9559  | .8168 33258  | .5768 73842  | .1082 72235  | .4927 38204  |
| 0.9560 | 0.8168 90941 | 0.5767 92155 | 1.1084 21514 | 1.4928 49039 |
| .9561  | .8169 48616  | .5767 10463  | .1085 70805  | .4929 59889  |
| .9562  | .8170 06283  | .5766 28766  | .1087 20106  | .4930 70753  |
| .9563  | .8170 63942  | .5765 47062  | .1088 69419  | .4931 81633  |
| .9564  | .8171 21592  | .5764 65353  | .1090 18745  | .4932 92527  |
| 0.9565 | 0.8171 79235 | 0.5763 83638 | 1.1091 68077 | 1.4934 03436 |
| .9566  | .8172 36869  | .5763 01917  | .1093 17423  | .4935 14361  |
| .9567  | .8172 94495  | .5762 20191  | .1094 66780  | .4936 25300  |
| .9568  | .8173 52113  | .5761 38458  | .1096 16148  | .4937 36254  |
| .9569  | .8174 09723  | .5760 56720  | .1097 65527  | .4938 47223  |
| 0.9570 | 0.8174 67325 | 0.5759 74976 | 1.1099 14918 | 1.4939 58207 |
| .9571  | .8175 24918  | .5758 93227  | .1100 64319  | .4940 69206  |
| .9572  | .8175 82503  | .5758 11471  | .1102 13732  | .4941 80230  |
| .9573  | .8176 40080  | .5757 29710  | .1103 63155  | .4942 91249  |
| .9574  | .8176 97649  | .5756 47943  | .1105 12590  | .4944 02293  |
| 0.9575 | 0.8177 55210 | 0.5755 66171 | 1.1105 62036 | 1.4945 13351 |
| .9576  | .8178 12762  | .5754 84392  | .1108 11483  | .4946 24425  |
| .9577  | .8178 70307  | .5754 02608  | .1109 60961  | .4947 35514  |
| .9578  | .8179 27843  | .5753 20818  | .1111 10440  | .4948 46617  |
| .9579  | .8179 85371  | .5752 39022  | .1112 59830  | .4949 57736  |
| 0.9580 | 0.8180 42891 | 0.5751 57221 | 1.1114 09431 | 1.4950 68869 |
| .9581  | .8181 00402  | .5750 75414  | .1115 58944  | .4951 80018  |
| .9582  | .8181 57906  | .5749 93601  | .1117 08467  | .4952 91181  |
| .9583  | .8182 15401  | .5749 11782  | .1118 58002  | .4954 02359  |
| .9584  | .8182 72888  | .5748 29958  | .1120 07548  | .4955 13553  |
| 0.9585 | 0.8183 30367 | 0.5747 48128 | 1.1121 57105 | 1.4956 24761 |
| .9586  | .8183 87838  | .5746 66292  | .1123 06673  | .4957 35984  |
| .9587  | .8184 45300  | .5745 84450  | .1124 56252  | .4958 47222  |
| .9588  | .8185 02755  | .5745 02603  | .1126 05842  | .4959 58475  |
| .9589  | .8185 60201  | .5744 20750  | .1127 55443  | .4960 69743  |
| 0.9590 | 0.8186 17639 | 0.5743 38891 | 1.1129 05056 | 1.4961 81026 |
| .9591  | .8186 75069  | .5742 57026  | .1130 54680  | .4962 92324  |
| .9592  | .8187 32490  | .5741 75156  | .1132 04314  | .4964 03637  |
| .9593  | .8187 89904  | .5740 93280  | .1133 53960  | .4965 14965  |
| .9594  | .8188 47309  | .5740 11398  | .1135 03617  | .4966 26308  |
| 0.9595 | 0.8189 04706 | 0.5739 29510 | 1.1136 53286 | 1.4967 37666 |
| .9596  | .8189 62095  | .5738 47617  | .1138 02965  | .4968 49039  |
| .9597  | .8190 19475  | .5737 65718  | .1139 52655  | .4969 60427  |
| .9598  | .8190 76848  | .5736 83813  | .1141 02357  | .4970 71829  |
| .9599  | .8191 34212  | .5736 01902  | .1142 52070  | .4971 83247  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.9600 | 0.8191 91568 | 0.5735 19986 | 1.1144 01794 | 1.4972 94680 |
| .9601  | .8192 46916  | .5734 38064  | .1145 51529  | .4974 06127  |
| .9602  | .8193 06256  | .5733 56136  | .1147 01275  | .4975 17590  |
| .9603  | .8193 63587  | .5732 74203  | .1148 51032  | .4976 29068  |
| .9604  | .8194 20911  | .5731 92264  | .1150 00801  | .4977 40560  |
| 0.9605 | 0.8194 78226 | 0.5731 10319 | 1.1151 50580 | 1.4978 52068 |
| .9606  | .8195 35533  | .5730 28368  | .1153 00371  | .4979 63590  |
| .9607  | .8195 92832  | .5729 46412  | .1154 50173  | .4980 75128  |
| .9608  | .8196 50122  | .5728 64449  | .1155 99986  | .4981 86680  |
| .9609  | .8197 07404  | .5727 82481  | .1157 49810  | .4982 98248  |
| 0.9610 | 0.8197 64679 | 0.5727 00508 | 1.1158 99646 | 1.4984 09830 |
| .9611  | .8198 21945  | .5726 18529  | .1160 49492  | .4985 21428  |
| .9612  | .8198 79202  | .5725 36543  | .1161 99350  | .4986 33040  |
| .9613  | .8199 36452  | .5724 54553  | .1163 49219  | .4987 44668  |
| .9614  | .8199 93693  | .5723 72556  | .1164 99099  | .4988 56310  |
| 0.9615 | 0.8200 50926 | 0.5722 90554 | 1.1166 48990 | 1.4989 67967 |
| .9616  | .8201 08151  | .5722 08546  | .1167 98893  | .4990 79640  |
| .9617  | .8201 65368  | .5721 26532  | .1169 48806  | .4991 91327  |
| .9618  | .8202 22577  | .5720 44513  | .1170 98731  | .4993 03030  |
| .9619  | .8202 79777  | .5719 62488  | .1172 48667  | .4994 14747  |
| 0.9620 | 0.8203 36969 | 0.5718 80457 | 1.1173 98614 | 1.4995 26479 |
| .9621  | .8203 94153  | .5717 98420  | .1175 48572  | .4996 38227  |
| .9622  | .8204 51329  | .5717 16378  | .1176 98542  | .4997 49989  |
| .9623  | .8205 08496  | .5716 34330  | .1178 48522  | .4998 61766  |
| .9624  | .8205 65656  | .5715 52276  | .1179 98514  | .4999 73559  |
| 0.9625 | 0.8206 22807 | 0.5714 70217 | 1.1181 48517 | 1.5000 85366 |
| .9626  | .8206 79950  | .5713 88152  | .1182 98531  | .5001 97188  |
| .9627  | .8207 37084  | .5713 06081  | .1184 48556  | .5003 09026  |
| .9628  | .8207 94211  | .5712 24004  | .1185 98593  | .5004 20878  |
| .9629  | .8208 51329  | .5711 41922  | .1187 48640  | .5005 32746  |
| 0.9630 | 0.8209 08439 | 0.5710 59834 | 1.1188 98699 | 1.5006 44628 |
| .9631  | .8209 65541  | .5709 77741  | .1190 48769  | .5007 56525  |
| .9632  | .8210 22635  | .5708 95641  | .1191 98851  | .5008 68438  |
| .9633  | .8210 79720  | .5708 13536  | .1193 48943  | .5009 80365  |
| .9634  | .8211 36798  | .5707 31425  | .1194 99047  | .5010 92307  |
| 0.9635 | 0.8211 93867 | 0.5706 49309 | 1.1196 49162 | 1.5012 04265 |
| .9636  | .8212 50927  | .5705 67186  | .1197 99288  | .5013 16237  |
| .9637  | .8213 07980  | .5704 85058  | .1199 49425  | .5014 28225  |
| .9638  | .8213 65024  | .5704 02925  | .1200 99573  | .5015 40227  |
| .9639  | .8214 22061  | .5703 20785  | .1202 49735  | .5016 52245  |
| 0.9640 | 0.8214 79089 | 0.5702 38640 | 1.1203 99904 | 1.5017 64277 |
| .9641  | .8215 36108  | .5701 56490  | .1205 50086  | .5018 76325  |
| .9642  | .8215 93120  | .5700 74333  | .1207 00279  | .5019 88387  |
| .9643  | .8216 50123  | .5699 92171  | .1208 50483  | .5021 00465  |
| .9644  | .8217 07118  | .5699 10003  | .1210 00699  | .5022 12557  |
| 0.9645 | 0.8217 64105 | 0.5698 27830 | 1.1211 50926 | 1.5023 24665 |
| .9646  | .8218 21084  | .5697 45650  | .1213 01164  | .5024 36787  |
| .9647  | .8218 78054  | .5696 63465  | .1214 51413  | .5025 48925  |
| .9648  | .8219 35017  | .5695 81275  | .1216 01674  | .5026 61078  |
| .9649  | .8219 91971  | .5694 99078  | .1217 51945  | .5027 73245  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.9650 | 0.8220 48916 | 0.5694 16876 | 1.1219 02228 | 1.5028 85428 |
| .9651  | .8221 05854  | .5693 34669  | .1220 52523  | .5029 97626  |
| .9652  | .8221 62783  | .5692 52455  | .1222 02828  | .5031 09839  |
| .9653  | .8222 19704  | .5691 70236  | .1223 53144  | .5032 22066  |
| .9654  | .8222 76617  | .5690 88011  | .1225 03472  | .5033 34309  |
| 0.9655 | 0.8223 33522 | 0.5690 05781 | 1.1226 53811 | 1.5034 46567 |
| .9656  | .8223 90419  | .5689 23544  | .1228 04162  | .5035 58840  |
| .9657  | .8224 47307  | .5688 41303  | .1229 54523  | .5036 71128  |
| .9658  | .8225 04187  | .5687 59055  | .1231 04896  | .5037 83431  |
| .9659  | .8225 61059  | .5686 76802  | .1232 55280  | .5038 95749  |
| 0.9660 | 0.8226 17922 | 0.5685 94543 | 1.1234 05675 | 1.5040 08082 |
| .9661  | .8226 74778  | .5685 12278  | .1235 56081  | .5041 20430  |
| .9662  | .8227 31625  | .5684 30008  | .1237 06499  | .5042 32793  |
| .9663  | .8227 88464  | .5683 47732  | .1238 56928  | .5043 45171  |
| .9664  | .8228 45294  | .5682 65450  | .1240 07368  | .5044 57565  |
| 0.9665 | 0.8229 02117 | 0.5681 83163 | 1.1241 57819 | 1.5045 69973 |
| .9666  | .8229 58931  | .5681 00870  | .1243 08282  | .5046 82396  |
| .9667  | .8230 15737  | .5680 18571  | .1244 58756  | .5047 94834  |
| .9668  | .8230 72535  | .5679 36267  | .1246 09241  | .5049 07288  |
| .9669  | .8231 29324  | .5678 53957  | .1247 59737  | .5050 19756  |
| 0.9670 | 0.8231 86105 | 0.5677 71641 | 1.1249 10245 | 1.5051 32240 |
| .9671  | .8232 42878  | .5676 89319  | .1250 60764  | .5052 44738  |
| .9672  | .8232 99643  | .5676 06992  | .1252 11294  | .5053 57252  |
| .9673  | .8233 56400  | .5675 24659  | .1253 61835  | .5054 69781  |
| .9674  | .8234 13148  | .5674 42321  | .1255 12388  | .5055 82324  |
| 0.9675 | 0.8234 69888 | 0.5673 59977 | 1.1256 62952 | 1.5056 94883 |
| .9676  | .8235 26620  | .5672 77627  | .1258 13527  | .5058 07457  |
| .9677  | .8235 83344  | .5671 95271  | .1259 64113  | .5059 20046  |
| .9678  | .8236 40059  | .5671 12910  | .1261 14711  | .5060 32650  |
| .9679  | .8236 96766  | .5670 30543  | .1262 65320  | .5061 45289  |
| 0.9680 | 0.8237 53465 | 0.5669 48171 | 1.1264 15940 | 1.5062 57903 |
| .9681  | .8238 10156  | .5668 65793  | .1265 66571  | .5063 70552  |
| .9682  | .8238 66838  | .5667 83409  | .1267 17214  | .5064 83216  |
| .9683  | .8239 23513  | .5667 01019  | .1268 67868  | .5065 95895  |
| .9684  | .8239 80179  | .5666 18624  | .1270 18533  | .5067 08590  |
| 0.9685 | 0.8240 36836 | 0.5665 36223 | 1.1271 69210 | 1.5068 21299 |
| .9686  | .8240 93486  | .5664 53817  | .1273 19898  | .5069 34024  |
| .9687  | .8241 50127  | .5663 71405  | .1274 70597  | .5070 46763  |
| .9688  | .8242 06760  | .5662 88987  | .1276 21307  | .5071 59518  |
| .9689  | .8242 63385  | .5662 06563  | .1277 72028  | .5072 72287  |
| 0.9690 | 0.8243 20001 | 0.5661 24134 | 1.1279 22761 | 1.5073 85072 |
| .9691  | .8243 76610  | .5660 41699  | .1280 73505  | .5074 97872  |
| .9692  | .8244 33210  | .5659 59259  | .1282 24261  | .5076 10687  |
| .9693  | .8244 89802  | .5658 76813  | .1283 75028  | .5077 23517  |
| .9694  | .8245 46385  | .5657 94361  | .1285 25806  | .5078 36362  |
| 0.9695 | 0.8246 02960 | 0.5657 11903 | 1.1286 76595 | 1.5079 49222 |
| .9696  | .8246 59528  | .5656 29440  | .1288 27395  | .5080 62097  |
| .9697  | .8247 16086  | .5655 46971  | .1289 78207  | .5081 74987  |
| .9698  | .8247 72637  | .5654 64497  | .1291 29030  | .5082 87893  |
| .9699  | .8248 29179  | .5653 82017  | .1292 79865  | .5084 00813  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.9700 | 0.8248 85713 | 0.5652 99531 | 1.1294 30711 | 1.5085 13749 |
| .9701  | .8249 42239  | .5652 17040  | .1295 81568  | .5096 26639  |
| .9702  | .8249 98757  | .5651 34543  | .1297 32436  | .5087 39665  |
| .9703  | .8250 55266  | .5650 52040  | .1298 83316  | .5088 52646  |
| .9704  | .8251 11767  | .5649 69532  | .1300 34206  | .5039 65642  |
| 0.9705 | 0.8251 68260 | 0.5648 87018 | 1.1301 85109 | 1.5090 78653 |
| .9706  | .8252 24745  | .5648 04498  | .1303 36022  | .5091 91679  |
| .9707  | .8252 81221  | .5647 21973  | .1304 86947  | .5093 04720  |
| .9708  | .8253 37689  | .5646 39442  | .1306 37883  | .5094 17776  |
| .9709  | .8253 94149  | .5645 56905  | .1307 88831  | .5095 30847  |
| 0.9710 | 0.8254 50600 | 0.5644 74363 | 1.1309 39789 | 1.5096 43934 |
| .9711  | .8255 07044  | .5643 91815  | .1310 90759  | .5097 57035  |
| .9712  | .8255 63479  | .5643 09262  | .1312 41741  | .5098 70152  |
| .9713  | .8256 19905  | .5642 26702  | .1313 92733  | .5099 83284  |
| .9714  | .8256 76324  | .5641 44138  | .1315 43737  | .5100 96431  |
| 0.9715 | 0.8257 32734 | 0.5640 61567 | 1.1316 94753 | 1.5102 09593 |
| .9716  | .8257 89136  | .5639 78991  | .1318 45779  | .5103 22770  |
| .9717  | .8258 45530  | .5638 96409  | .1319 96817  | .5104 35962  |
| .9718  | .8259 01916  | .5638 13822  | .1321 47867  | .5105 49169  |
| .9719  | .8259 58293  | .5637 31229  | .1322 98927  | .5106 62391  |
| 0.9720 | 0.8260 14662 | 0.5636 48630 | 1.1324 49999 | 1.5107 75629 |
| .9721  | .8260 71023  | .5635 66026  | .1326 01082  | .5108 88881  |
| .9722  | .8261 27375  | .5634 83416  | .1327 52177  | .5110 02149  |
| .9723  | .8261 83719  | .5634 00800  | .1329 03293  | .5111 15432  |
| .9724  | .8262 40055  | .5633 18179  | .1330 54400  | .5112 28730  |
| 0.9725 | 0.8262 96383 | 0.5632 35552 | 1.1332 05528 | 1.5113 42043 |
| .9726  | .8263 52702  | .5631 52920  | .1333 56668  | .5114 55371  |
| .9727  | .8264 09014  | .5630 70282  | .1335 07819  | .5115 68714  |
| .9728  | .8264 65316  | .5629 87638  | .1336 58982  | .5116 82072  |
| .9729  | .8265 21611  | .5629 04989  | .1338 10156  | .5117 95448  |
| 0.9730 | 0.8265 77897 | 0.5628 22334 | 1.1339 61341 | 1.5119 08834 |
| .9731  | .8266 34176  | .5627 39673  | .1341 12538  | .5120 22238  |
| .9732  | .8266 90445  | .5626 57007  | .1342 63746  | .5121 35657  |
| .9733  | .8267 46707  | .5625 74335  | .1344 14965  | .5122 49091  |
| .9734  | .8268 02960  | .5624 91658  | .1345 66195  | .5123 62540  |
| 0.9735 | 0.8268 59205 | 0.5624 08975 | 1.1347 17437 | 1.5124 76004 |
| .9736  | .8269 15442  | .5623 26286  | .1348 68691  | .5125 89483  |
| .9737  | .8269 71670  | .5622 43592  | .1350 19955  | .5127 02978  |
| .9738  | .8270 27891  | .5621 60892  | .1351 71231  | .5128 16487  |
| .9739  | .8270 84103  | .5620 78186  | .1353 22518  | .5129 30012  |
| 0.9740 | 0.8271 40306 | 0.5619 95475 | 1.1354 73817 | 1.5130 43552 |
| .9741  | .8271 96502  | .5619 12758  | .1356 25127  | .5131 57107  |
| .9742  | .8272 52689  | .5618 30035  | .1357 76449  | .5132 70677  |
| .9743  | .8273 08868  | .5617 47307  | .1359 27781  | .5133 84262  |
| .9744  | .8273 65038  | .5616 64574  | .1360 79125  | .5134 97862  |
| 0.9745 | 0.8274 21201 | 0.5615 81834 | 1.1362 30481 | 1.5136 11478 |
| .9746  | .8274 77355  | .5614 99089  | .1363 81848  | .5137 25108  |
| .9747  | .8275 33501  | .5614 16339  | .1365 33226  | .5138 38754  |
| .9748  | .8275 89638  | .5613 33583  | .1366 84615  | .5139 52415  |
| .9749  | .8276 45767  | .5612 50821  | .1368 36016  | .5140 66091  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.9750 | 0.8277 01888 | 0.5611 68054 | 1.1369 87429 | 1.5141 79782 |
| .9751  | .8277 58001  | .5610 85281  | .1371 38852  | .5142 93489  |
| .9752  | .8278 14105  | .5610 02502  | .1372 90287  | .5144 07210  |
| .9753  | .8278 70201  | .5609 19718  | .1374 41734  | .5145 20947  |
| .9754  | .8279 26239  | .5608 36928  | .1375 93192  | .5146 34698  |
| 0.9755 | 0.8279 82369 | 0.5607 54132 | 1.1377 44661 | 1.5147 48465 |
| .9756  | .8280 38440  | .5606 71331  | .1378 96141  | .5148 62247  |
| .9757  | .8280 94503  | .5605 88525  | .1380 47633  | .5149 76045  |
| .9758  | .8281 50558  | .5605 05713  | .1381 99137  | .5150 89857  |
| .9759  | .8282 06604  | .5604 22895  | .1383 50651  | .5152 03684  |
| 0.9760 | 0.8282 62642 | 0.5603 40071 | 1.1385 02177 | 1.5153 17527 |
| .9761  | .8283 18672  | .5602 57242  | .1386 53715  | .5154 31385  |
| .9762  | .8283 74694  | .5601 74407  | .1388 05264  | .5155 45258  |
| .9763  | .8284 30707  | .5600 91567  | .1389 56824  | .5156 59146  |
| .9764  | .8284 86712  | .5600 08721  | .1391 08395  | .5157 73049  |
| 0.9765 | 0.8285 42709 | 0.5599 25870 | 1.1392 59978 | 1.5158 86968 |
| .9766  | .8285 98697  | .5598 43013  | .1394 11573  | .5160 00901  |
| .9767  | .8286 54677  | .5597 60150  | .1395 63179  | .5161 14850  |
| .9768  | .8287 10649  | .5596 77282  | .1397 14796  | .5162 28814  |
| .9769  | .8287 66613  | .5595 94408  | .1398 66424  | .5163 42793  |
| 0.9770 | 0.8288 22568 | 0.5595 11529 | 1.1400 18064 | 1.5164 56787 |
| .9771  | .8288 78515  | .5594 28643  | .1401 69716  | .5165 70796  |
| .9772  | .8289 34454  | .5593 45753  | .1403 21378  | .5166 84821  |
| .9773  | .8289 90384  | .5592 62857  | .1404 73053  | .5167 98861  |
| .9774  | .8290 46306  | .5591 79955  | .1406 24738  | .5169 12916  |
| 0.9775 | 0.8291 02220 | 0.5590 97047 | 1.1407 76435 | 1.5170 26986 |
| .9776  | .8291 58126  | .5590 14134  | .1409 28144  | .5171 41071  |
| .9777  | .8292 14023  | .5589 31216  | .1410 79863  | .5172 55171  |
| .9778  | .8292 69912  | .5588 48292  | .1412 31595  | .5173 69287  |
| .9779  | .8293 25793  | .5587 65362  | .1413 83337  | .5174 83418  |
| 0.9780 | 0.8293 81665 | 0.5586 82426 | 1.1415 35091 | 1.5175 97563 |
| .9781  | .8294 37529  | .5585 99485  | .1416 86857  | .5177 11725  |
| .9782  | .8294 93385  | .5585 16539  | .1418 38634  | .5178 25901  |
| .9783  | .8295 49233  | .5584 33587  | .1419 90422  | .5179 40092  |
| .9784  | .8296 05072  | .5583 50629  | .1421 42222  | .5180 54299  |
| 0.9785 | 0.8296 60903 | 0.5582 67666 | 1.1422 94033 | 1.5181 68521 |
| .9786  | .8297 16725  | .5581 84697  | .1424 45855  | .5182 82758  |
| .9787  | .8297 72540  | .5581 01722  | .1425 97689  | .5183 97010  |
| .9788  | .8298 28346  | .5580 18742  | .1427 49535  | .5185 11277  |
| .9789  | .8298 84143  | .5579 35757  | .1429 01392  | .5186 25560  |
| 0.9790 | 0.8299 39933 | 0.5578 52765 | 1.1430 53260 | 1.5187 39858 |
| .9791  | .8299 95714  | .5577 69769  | .1432 05140  | .5188 54170  |
| .9792  | .8300 51487  | .5576 86766  | .1433 57031  | .5189 68499  |
| .9793  | .8301 07251  | .5575 03758  | .1435 08933  | .5190 82842  |
| .9794  | .8301 63007  | .5575 20745  | .1436 60847  | .5191 97200  |
| 0.9795 | 0.8302 18755 | 0.5574 37726 | 1.1438 12773 | 1.5193 11574 |
| .9796  | .8302 74495  | .5573 54701  | .1439 64710  | .5194 25963  |
| .9797  | .8303 30226  | .5572 71671  | .1441 16658  | .5195 40367  |
| .9798  | .8303 85949  | .5571 88635  | .1442 68618  | .5196 54786  |
| .9799  | .8304 41664  | .5571 05594  | .1444 20589  | .5197 69221  |

[illegible]

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.9850 | 0.8332 72090 | 0.5528 63114 | 1.1521 86329 | 1.5255 25556 |
| .9851  | .8333 27373  | .5527 79784  | .1523 38897  | .5257 40782  |
| .9852  | .8333 82646  | .5526 96449  | .1524 91477  | .5258 56023  |
| .9853  | .8334 37912  | .5526 13108  | .1526 44068  | .5259 71280  |
| .9854  | .8334 93169  | .5525 29761  | .1527 96671  | .5260 86552  |
| 0.9855 | 0.8335 48418 | 0.5524 46409 | 1.1529 49286 | 1.5262 01840 |
| .9856  | .8336 03658  | .5523 63052  | .1531 01912  | .5263 17142  |
| .9857  | .8336 58890  | .5522 79689  | .1532 54549  | .5264 32460  |
| .9858  | .8337 14114  | .5521 96320  | .1534 07198  | .5265 47793  |
| .9859  | .8337 69330  | .5521 12946  | .1535 59859  | .5266 63141  |
| 0.9860 | 0.8338 24537 | 0.5520 29566 | 1.1537 12531 | 1.5267 78505 |
| .9861  | .8338 79736  | .5519 46181  | .1538 65214  | .5268 93884  |
| .9862  | .8339 34926  | .5518 62790  | .1540 17909  | .5270 09278  |
| .9863  | .8339 90108  | .5517 79394  | .1541 70616  | .5271 24687  |
| .9864  | .8340 45282  | .5516 95992  | .1543 23334  | .5272 40112  |
| 0.9865 | 0.8341 00447 | 0.5516 12585 | 1.1544 76064 | 1.5273 55552 |
| .9866  | .8341 55604  | .5515 29172  | .1546 28805  | .5274 71007  |
| .9867  | .8342 10753  | .5514 45754  | .1547 81558  | .5275 86478  |
| .9868  | .8342 65894  | .5513 62330  | .1549 34323  | .5277 01964  |
| .9869  | .8343 21026  | .5512 78901  | .1550 87099  | .5278 17465  |
| 0.9870 | 0.8343 76149 | 0.5511 95466 | 1.1552 39886 | 1.5279 32981 |
| .9871  | .8344 31265  | .5511 12025  | .1553 92685  | .5280 48513  |
| .9872  | .8344 86372  | .5510 28579  | .1555 45496  | .5281 64060  |
| .9873  | .8345 41470  | .5509 45128  | .1556 98318  | .5282 79622  |
| .9874  | .8345 96561  | .5508 61671  | .1558 51152  | .5283 95199  |
| 0.9875 | 0.8346 51643 | 0.5507 78209 | 1.1560 03997 | 1.5285 10792 |
| .9876  | .8347 06716  | .5506 94741  | .1561 56854  | .5286 26400  |
| .9877  | .8347 61782  | .5506 11267  | .1563 09722  | .5287 42023  |
| .9878  | .8348 16839  | .5505 27788  | .1564 62602  | .5288 57662  |
| .9879  | .8348 71887  | .5504 44304  | .1566 15494  | .5289 73316  |
| 0.9880 | 0.8349 26928 | 0.5503 60814 | 1.1567 68397 | 1.5290 88985 |
| .9881  | .8349 81959  | .5502 77319  | .1569 21312  | .5292 04670  |
| .9882  | .8350 36983  | .5501 93818  | .1570 74238  | .5293 20369  |
| .9883  | .8350 91998  | .5501 10311  | .1572 27176  | .5294 36085  |
| .9884  | .8351 47005  | .5500 26799  | .1573 80125  | .5295 51815  |
| 0.9885 | 0.8352 02004 | 0.5499 43282 | 1.1575 33086 | 1.5296 67561 |
| .9886  | .8352 56994  | .5498 59759  | .1576 86059  | .5297 83321  |
| .9887  | .8353 11976  | .5497 76230  | .1578 39043  | .5298 99098  |
| .9888  | .8353 66949  | .5496 92696  | .1579 92039  | .5300 14889  |
| .9889  | .8354 21914  | .5496 09157  | .1581 45046  | .5301 30696  |
| 0.9890 | 0.8354 76871 | 0.5495 25612 | 1.1582 98065 | 1.5302 46518 |
| .9891  | .8355 31819  | .5494 42062  | .1584 51095  | .5303 62356  |
| .9892  | .8355 86759  | .5493 58506  | .1586 04137  | .5304 78209  |
| .9893  | .8356 41691  | .5492 74944  | .1587 57191  | .5305 94077  |
| .9894  | .8356 96614  | .5491 91377  | .1589 10256  | .5307 09960  |
| 0.9895 | 0.8357 51529 | 0.5491 07805 | 1.1590 63333 | 1.5308 25859 |
| .9896  | .8358 06436  | .5490 24227  | .1592 16421  | .5309 41773  |
| .9897  | .8358 61334  | .5489 40644  | .1593 69521  | .5310 57702  |
| .9898  | .8359 16224  | .5488 57055  | .1595 22633  | .5311 73647  |
| .9899  | .8359 71105  | .5487 73460  | .1596 75756  | .5312 89606  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.9900 | 0.8360 25979 | 0.5486 89861 | 1.1598 28891 | 1.5314 05582 |
| .9901  | .8360 80843  | .5486 06255  | .1599 82037  | .5315 21572  |
| .9902  | .8361 35700  | .5485 22644  | .1601 35195  | .5316 37578  |
| .9903  | .8361 90548  | .5484 39028  | .1602 88365  | .5317 53599  |
| .9904  | .8362 45388  | .5483 55406  | .1604 41546  | .5318 69636  |
| 0.9905 | 0.8363 00219 | 0.5482 71779 | 1.1605 94738 | 1.5319 85688 |
| .9906  | .8363 55042  | .5481 88146  | .1607 47943  | .5321 01755  |
| .9907  | .8364 09857  | .5481 04508  | .1609 01159  | .5322 17837  |
| .9908  | .8364 64663  | .5480 20864  | .1610 54386  | .5323 33935  |
| .9909  | .8365 19461  | .5479 57215  | .1612 07626  | .5324 50048  |
| 0.9910 | 0.8365 74250 | 0.5478 53560 | 1.1613 60876 | 1.5325 66176 |
| .9911  | .8366 29032  | .5477 69900  | .1615 14139  | .5326 82320  |
| .9912  | .8366 83804  | .5476 86235  | .1616 67413  | .5327 98479  |
| .9913  | .8367 38569  | .5476 02563  | .1618 20699  | .5329 14654  |
| .9914  | .8367 93325  | .5475 18887  | .1619 73996  | .5330 30843  |
| 0.9915 | 0.8368 48073 | 0.5474 35205 | 1.1621 27305 | 1.5331 47049 |
| .9916  | .8369 02812  | .5473 51517  | .1622 80625  | .5332 63269  |
| .9917  | .8369 57543  | .5472 67824  | .1624 33957  | .5333 79505  |
| .9918  | .8370 12265  | .5471 84126  | .1625 87301  | .5334 95756  |
| .9919  | .8370 66980  | .5471 00422  | .1627 40657  | .5336 12022  |
| 0.9920 | 0.8371 21686 | 0.5470 16712 | 1.1628 94024 | 1.5337 28304 |
| .9921  | .8371 76383  | .5469 32997  | .1630 47402  | .5338 44601  |
| .9922  | .8372 31072  | .5468 49277  | .1632 00792  | .5339 60913  |
| .9923  | .8372 85753  | .5467 65551  | .1633 54194  | .5340 77241  |
| .9924  | .8373 40425  | .5466 81820  | .1635 07608  | .5341 93584  |
| 0.9925 | 0.8373 95089 | 0.5465 98083 | 1.1636 61033 | 1.5343 09943 |
| .9926  | .8374 49745  | .5465 14341  | .1638 14470  | .5344 26316  |
| .9927  | .8375 04392  | .5464 30593  | .1639 67918  | .5345 42705  |
| .9928  | .8375 59031  | .5463 46840  | .1641 21378  | .5346 59110  |
| .9929  | .8376 13661  | .5462 63081  | .1642 74850  | .5347 75530  |
| 0.9930 | 0.8376 68284 | 0.5461 79317 | 1.1644 28334 | 1.5348 91965 |
| .9931  | .8377 22897  | .5460 95548  | .1645 81829  | .5350 08415  |
| .9932  | .8377 77503  | .5460 11773  | .1647 35335  | .5351 24881  |
| .9933  | .8378 32100  | .5459 27992  | .1648 88854  | .5352 41362  |
| .9934  | .8378 86688  | .5458 44206  | .1650 42383  | .5353 57859  |
| 0.9935 | 0.8379 41269 | 0.5457 60415 | 1.1651 95925 | 1.5354 74371 |
| .9936  | .8379 95840  | .5456 76618  | .1653 49478  | .5355 90898  |
| .9937  | .8380 50404  | .5455 92816  | .1655 03043  | .5357 07441  |
| .9938  | .8381 04959  | .5455 09008  | .1656 56620  | .5358 23999  |
| .9939  | .8381 59506  | .5454 25195  | .1658 10208  | .5359 40572  |
| 0.9940 | 0.8382 14044 | 0.5453 41376 | 1.1659 63808 | 1.5360 57161 |
| .9941  | .8382 68574  | .5452 57552  | .1661 17420  | .5361 73765  |
| .9942  | .8383 23096  | .5451 73722  | .1662 71043  | .5362 90384  |
| .9943  | .8383 77609  | .5450 89887  | .1664 24678  | .5364 07019  |
| .9944  | .8384 32113  | .5450 06047  | .1665 78324  | .5365 23669  |
| 0.9945 | 0.8384 86610 | 0.5449 22201 | 1.1667 31982 | 1.5366 40335 |
| .9946  | .8385 41098  | .5448 38350  | .1668 85652  | .5367 57016  |
| .9947  | .8385 95578  | .5447 54493  | .1670 39334  | .5368 73712  |
| .9948  | .8386 50049  | .5446 70630  | .1671 93027  | .5369 90424  |
| .9949  | .8387 04512  | .5445 86763  | .1673 46732  | .5371 07151  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 0.9950 | 0.8387 58966 | 0.5445 02889 | 1.1675 00448 | 1.5372 23893 |
| .9951  | .8388 13412  | .5444 19011  | .1676 54177  | .5373 40651  |
| .9952  | .8388 67850  | .5443 35127  | .1678 07916  | .5374 57424  |
| .9953  | .8389 22279  | .5442 51237  | .1679 61668  | .5375 74212  |
| .9954  | .8389 76700  | .5441 67342  | .1681 15431  | .5376 91016  |
| 0.9955 | 0.8390 31113 | 0.5440 83442 | 1.1682 69206 | 1.5378 07835 |
| .9956  | .8390 85517  | .5439 99536  | .1684 22993  | .5379 24670  |
| .9957  | .8391 39913  | .5439 15625  | .1685 76791  | .5380 41520  |
| .9958  | .8391 94300  | .5438 31708  | .1687 30601  | .5381 58385  |
| .9959  | .8392 48679  | .5437 47786  | .1688 84423  | .5382 75266  |
| 0.9960 | 0.8393 03050 | 0.5436 63858 | 1.1690 38256 | 1.5383 92162 |
| .9961  | .8393 57412  | .5435 79925  | .1691 92101  | .5385 09074  |
| .9962  | .8394 11766  | .5434 95987  | .1693 45958  | .5386 26001  |
| .9963  | .8394 66111  | .5434 12043  | .1694 99827  | .5387 42943  |
| .9964  | .8395 20448  | .5433 28094  | .1696 53707  | .5388 59901  |
| 0.9965 | 0.8395 74777 | 0.5432 44139 | 1.1698 07599 | 1.5389 76874 |
| .9966  | .8396 29097  | .5431 60179  | .1699 61502  | .5390 93862  |
| .9967  | .8396 83409  | .5430 76213  | .1701 15417  | .5392 10866  |
| .9968  | .8397 37712  | .5429 92242  | .1702 69344  | .5393 27885  |
| .9969  | .8397 92007  | .5429 08266  | .1704 23283  | .5394 44920  |
| 0.9970 | 0.8398 46294 | 0.5428 24284 | 1.1705 77233 | 1.5395 61970 |
| .9971  | .8399 00572  | .5427 40296  | .1707 31195  | .5396 79035  |
| .9972  | .8399 54842  | .5426 56304  | .1708 85169  | .5397 96116  |
| .9973  | .8400 09103  | .5425 72305  | .1710 39154  | .5399 13212  |
| .9974  | .8400 63356  | .5424 88302  | .1711 93152  | .5400 30324  |
| 0.9975 | 0.8401 17601 | 0.5424 04293 | 1.1713 47161 | 1.5401 47451 |
| .9976  | .8401 71837  | .5423 20278  | .1715 01181  | .5402 64593  |
| .9977  | .8402 26065  | .5422 36258  | .1716 55213  | .5403 81751  |
| .9978  | .8402 80284  | .5421 52233  | .1718 09257  | .5404 98924  |
| .9979  | .8403 34495  | .5420 68202  | .1719 63313  | .5406 16113  |
| 0.9980 | 0.8403 88698 | 0.5419 84166 | 1.1721 17381 | 1.5407 33317 |
| .9981  | .8404 42892  | .5419 00125  | .1722 71460  | .5408 50536  |
| .9982  | .8404 97078  | .5418 16078  | .1724 25551  | .5409 67771  |
| .9983  | .8405 51255  | .5417 32025  | .1725 79653  | .5410 85022  |
| .9984  | .8406 05424  | .5416 47967  | .1727 33768  | .5412 02287  |
| 0.9985 | 0.8406 59585 | 0.5415 63904 | 1.1728 87894 | 1.5413 19568 |
| .9986  | .8407 13737  | .5414 79835  | .1730 42032  | .5414 36865  |
| .9987  | .8407 67881  | .5413 95761  | .1731 96181  | .5415 54177  |
| .9988  | .8408 22016  | .5413 11682  | .1733 50343  | .5416 71504  |
| .9989  | .8408 76143  | .5412 27597  | .1735 04516  | .5417 88847  |
| 0.9990 | 0.8409 30262 | 0.5411 43507 | 1.1736 58700 | 1.5419 06205 |
| .9991  | .8409 84372  | .5410 59411  | .1738 12897  | .5420 23579  |
| .9992  | .8410 38474  | .5409 75310  | .1739 67105  | .5421 40968  |
| .9993  | .8410 92567  | .5408 91203  | .1741 21325  | .5422 58372  |
| .9994  | .8411 46652  | .5408 07091  | .1742 75557  | .5423 75792  |
| 0.9995 | 0.8412 00728 | 0.5407 22974 | 1.1744 29800 | 1.5424 93227 |
| .9996  | .8412 54797  | .5406 38851  | .1745 84055  | .5426 10678  |
| .9997  | .8413 08856  | .5405 54723  | .1747 38322  | .5427 28144  |
| .9998  | .8413 62908  | .5404 70589  | .1748 92601  | .5428 45625  |
| .9999  | .8414 16950  | .5403 86450  | .1750 46891  | .5429 63122  |

| X      | sum X        | cos X        | sum X        | cos X        |
|--------|--------------|--------------|--------------|--------------|
| 1.0000 | 0.8414 70985 | 0.5403 02306 | 1.1752 01194 | 1.5430 30635 |
| .0001  | .8415 25011  | .5402 18156  | .1753 55509  | .5431 92163  |
| .0002  | .8415 79028  | .5401 54001  | .1755 03633  | .5433 15706  |
| .0003  | .8416 33038  | .5400 49840  | .1756 54171  | .5434 33235  |
| .0004  | .8416 87038  | .5399 65674  | .1758 15520  | .5435 50639  |
| 1.0005 | 0.8417 41031 | 0.5398 81503 | 1.1759 72831 | 1.5436 68428 |
| .0006  | .8417 95015  | .5397 97326  | .1761 27254  | .5437 93033  |
| .0007  | .8418 48990  | .5397 13144  | .1762 51839  | .5439 33354  |
| .0008  | .8419 02957  | .5396 28956  | .1764 36034  | .5440 21220  |
| .0009  | .8419 56913  | .5395 44763  | .1765 30442  | .5441 33941  |
| 1.0010 | 0.8420 10866 | 0.5394 60565 | 1.1767 44332 | 1.5442 53608 |
| .0011  | .8420 64808  | .5393 76361  | .1768 99294  | .5443 74220  |
| .0012  | .8421 18742  | .5392 92152  | .1770 53737  | .5444 91368  |
| .0013  | .8421 72667  | .5392 07937  | .1772 08192  | .5446 09701  |
| .0014  | .8422 26583  | .5391 23717  | .1773 62659  | .5447 27129  |
| 1.0015 | 0.8422 80491 | 0.5390 39492 | 1.1775 17136 | 1.5448 46173 |
| .0016  | .8423 34391  | .5389 55261  | .1776 71328  | .5449 62933  |
| .0017  | .8423 88282  | .5388 71025  | .1778 26130  | .5450 80708  |
| .0018  | .8424 42165  | .5387 86794  | .1779 30344  | .5451 98483  |
| .0019  | .8424 96040  | .5387 02537  | .1781 35170  | .5453 16304  |
| 1.0020 | 0.8425 49906 | 0.5386 18234 | 1.1782 99707 | 1.5454 34125 |
| .0021  | .8426 03763  | .5385 34027  | .1784 44257  | .5455 51932  |
| .0022  | .8426 57613  | .5384 49764  | .1785 98818  | .5456 69314  |
| .0023  | .8427 11453  | .5383 65495  | .1787 53391  | .5457 87381  |
| .0024  | .8427 65286  | .5382 81221  | .1789 07975  | .5459 05364  |
| 1.0025 | 0.8428 19110 | 0.5381 96942 | 1.1790 62572 | 1.5460 23463 |
| .0026  | .8428 72925  | .5381 12658  | .1792 17180  | .5461 41377  |
| .0027  | .8429 26732  | .5380 28368  | .1793 71900  | .5462 59306  |
| .0028  | .8429 80531  | .5379 44072  | .1795 26432  | .5463 77251  |
| .0029  | .8430 34321  | .5378 59771  | .1796 31075  | .5464 95212  |
| 1.0030 | 0.8430 88103 | 0.5377 75465 | 1.1798 35731 | 1.5465 13188 |
| .0031  | .8431 41876  | .5376 91154  | .1799 90398  | .5467 31179  |
| .0032  | .8431 95641  | .5376 06837  | .1801 45077  | .5468 49186  |
| .0033  | .8432 49397  | .5375 22515  | .1802 99768  | .5469 67208  |
| .0034  | .8433 03145  | .5374 38187  | .1804 54471  | .5470 85243  |
| 1.0035 | 0.8433 56885 | 0.5373 53854 | 1.1806 09165 | 1.5472 03299 |
| .0036  | .8434 10616  | .5372 69516  | .1807 63911  | .5473 21337  |
| .0037  | .8434 64339  | .5371 85172  | .1809 18649  | .5474 39452  |
| .0038  | .8435 18053  | .5371 00823  | .1810 73399  | .5475 57551  |
| .0039  | .8435 71759  | .5370 16463  | .1812 28161  | .5476 75666  |
| 1.0040 | 0.8436 25457 | 0.5369 32108 | 1.1813 82934 | 1.5477 93797 |
| .0041  | .8436 79146  | .5368 47743  | .1815 37720  | .5479 11943  |
| .0042  | .8437 32826  | .5367 63373  | .1816 92517  | .5480 30104  |
| .0043  | .8437 86498  | .5366 78997  | .1818 47326  | .5481 48281  |
| .0044  | .8438 40162  | .5365 94615  | .1820 02146  | .5482 66474  |
| 1.0045 | 0.8438 93817 | 0.5365 10229 | 1.1821 56979 | 1.5483 84682 |
| .0046  | .8439 47464  | .5364 25837  | .1823 11823  | .5485 02906  |
| .0047  | .8440 01102  | .5363 41439  | .1824 66678  | .5486 21144  |
| .0048  | .8440 54732  | .5362 57036  | .1826 21547  | .5487 39399  |
| .0049  | .8441 08354  | .5361 72626  | .1827 76427  | .5489 57663  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.0050 | 0.8441 61967 | 0.5360 83215 | 1.1829 31319 | 1.5489 75954 |
| .0051  | .8442 15571  | .5360 03796  | .1830 86233  | .5490 94255  |
| .0052  | .8442 69167  | .5359 19372  | .1832 41138  | .5492 12571  |
| .0053  | .8443 22755  | .5358 34942  | .1833 96065  | .5493 30903  |
| .0054  | .8443 76334  | .5357 50507  | .1835 51004  | .5494 49250  |
| 1.0055 | 0.8444 29905 | 0.5356 66067 | 1.1837 05955 | 1.5495 67613 |
| .0056  | .8444 83468  | .5355 81621  | .1838 60918  | .5496 85991  |
| .0057  | .8445 37022  | .5354 97170  | .1840 15892  | .5498 04385  |
| .0058  | .8445 90567  | .5354 12714  | .1841 70878  | .5499 22795  |
| .0059  | .8446 44104  | .5353 28252  | .1843 25877  | .5500 41219  |
| 1.0060 | 0.8446 97633 | 0.5352 43785 | 1.1844 80887 | 1.5501 59660 |
| .0061  | .8447 51153  | .5351 59312  | .1846 35909  | .5502 78116  |
| .0062  | .8448 04665  | .5350 74835  | .1847 90942  | .5503 96587  |
| .0063  | .8448 58168  | .5349 90351  | .1849 45988  | .5505 15074  |
| .0064  | .8449 11663  | .5349 05863  | .1851 01045  | .5506 33576  |
| 1.0065 | 0.8449 65149 | 0.5348 21369 | 1.1852 56115 | 1.5507 52094 |
| .0066  | .8450 18627  | .5347 36870  | .1854 11196  | .5508 70627  |
| .0067  | .8450 72096  | .5346 52365  | .1855 66289  | .5509 89176  |
| .0068  | .8451 25557  | .5345 67856  | .1857 21394  | .5511 07741  |
| .0069  | .8451 79010  | .5344 83340  | .1858 76510  | .5512 26321  |
| 1.0070 | 0.8452 32454 | 0.5343 98820 | 1.1860 31639 | 1.5513 44916 |
| .0071  | .8452 85890  | .5343 14294  | .1861 86779  | .5514 63527  |
| .0072  | .8453 39317  | .5342 29763  | .1863 41932  | .5515 82153  |
| .0073  | .8453 92736  | .5341 45226  | .1864 97096  | .5517 00795  |
| .0074  | .8454 46146  | .5340 60684  | .1866 52272  | .5518 19453  |
| 1.0075 | 0.8454 99548 | 0.5339 76137 | 1.1868 07460 | 1.5519 38126 |
| .0076  | .8455 52941  | .5338 91584  | .1869 62659  | .5520 56814  |
| .0077  | .8456 06326  | .5338 07026  | .1871 17871  | .5521 75518  |
| .0078  | .8456 59703  | .5337 22463  | .1872 73094  | .5522 94238  |
| .0079  | .8457 13071  | .5336 37894  | .1874 28330  | .5524 12973  |
| 1.0080 | 0.8457 66430 | 0.5335 53320 | 1.1875 83577 | 1.5525 31723 |
| .0081  | .8458 19781  | .5334 68741  | .1877 38836  | .5526 50490  |
| .0082  | .8458 73124  | .5333 84156  | .1878 94107  | .5527 69271  |
| .0083  | .8459 26458  | .5332 99566  | .1880 49390  | .5528 88068  |
| .0084  | .8459 79784  | .5332 14971  | .1882 04685  | .5530 06881  |
| 1.0085 | 0.8460 33101 | 0.5331 30370 | 1.1883 59991 | 1.5531 25709 |
| .0086  | .8460 86410  | .5330 45764  | .1885 15310  | .5532 44553  |
| .0087  | .8461 39710  | .5329 61153  | .1886 70640  | .5533 63412  |
| .0088  | .8461 93002  | .5328 76536  | .1888 25983  | .5534 82287  |
| .0089  | .8462 46286  | .5327 91914  | .1889 81337  | .5536 01178  |
| 1.0090 | 0.8462 99561 | 0.5327 07287 | 1.1891 36703 | 1.5537 20084 |
| .0091  | .8463 52827  | .5326 22655  | .1892 92081  | .5538 39005  |
| .0092  | .8464 06085  | .5325 38017  | .1894 47471  | .5539 57942  |
| .0093  | .8464 59335  | .5324 53373  | .1896 02872  | .5540 76894  |
| .0094  | .8465 12576  | .5323 68725  | .1897 58286  | .5541 95863  |
| 1.0095 | 0.8465 65808 | 0.5322 84071 | 1.1899 13712 | 1.5543 14846 |
| .0096  | .8466 19033  | .5321 99412  | .1900 69149  | .5544 33845  |
| .0097  | .8466 72248  | .5321 14747  | .1902 24598  | .5545 52860  |
| .0098  | .8467 25456  | .5320 30077  | .1903 80060  | .5546 71890  |
| .0099  | .8467 78654  | .5319 45402  | .1905 35533  | .5547 90936  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.0100 | 0.8468 31845 | 0.5318 60721 | 1.1906 91018 | 1.5549 09997 |
| .0101  | .8468 85026  | .5317 76036  | .1908 46515  | .5550 29074  |
| .0102  | .8469 38200  | .5316 91344  | .1910 02024  | .5551 48167  |
| .0103  | .8469 91365  | .5316 06548  | .1911 57544  | .5552 67275  |
| .0104  | .8470 44521  | .5315 21946  | .1913 13077  | .5553 86398  |
| 1.0105 | 0.8470 97669 | 0.5314 37239 | 1.1914 68622 | 1.5555 05537 |
| .0106  | .8471 50809  | .5313 52527  | .1916 24178  | .5556 24692  |
| .0107  | .8472 03940  | .5312 67809  | .1917 79747  | .5557 43862  |
| .0108  | .8472 57062  | .5311 83086  | .1919 35327  | .5558 63048  |
| .0109  | .8473 10176  | .5310 98357  | .1920 90919  | .5559 82249  |
| 1.0110 | 0.8473 63282 | 0.5310 13624 | 1.1922 46523 | 1.5561 01466 |
| .0111  | .8474 16379  | .5309 28885  | .1924 02139  | .5562 20698  |
| .0112  | .8474 69468  | .5308 44140  | .1925 57767  | .5563 39946  |
| .0113  | .8475 22548  | .5307 59391  | .1927 13407  | .5564 59210  |
| .0114  | .8475 75619  | .5306 74636  | .1928 69059  | .5565 78489  |
| 1.0115 | 0.8476 28683 | 0.5305 89876 | 1.1930 24723 | 1.5566 97784 |
| .0116  | .8476 81737  | .5305 05110  | .1931 80399  | .5568 17094  |
| .0117  | .8477 34784  | .5304 20339  | .1933 36087  | .5569 36420  |
| .0118  | .8477 87822  | .5303 35563  | .1934 91786  | .5570 55761  |
| .0119  | .8478 40851  | .5302 50782  | .1936 47498  | .5571 75118  |
| 1.0120 | 0.8478 93872 | 0.5301 65995 | 1.1938 03221 | 1.5572 94491 |
| .0121  | .8479 46884  | .5300 81203  | .1939 58957  | .5574 13879  |
| .0122  | .8479 99888  | .5299 96406  | .1941 14704  | .5575 33283  |
| .0123  | .8480 52883  | .5299 11603  | .1942 70463  | .5576 52702  |
| .0124  | .8481 05870  | .5298 26795  | .1944 26234  | .5577 72137  |
| 1.0125 | 0.8481 58849 | 0.5297 41982 | 1.1945 82018 | 1.5578 91587 |
| .0126  | .8482 11819  | .5296 57163  | .1947 37813  | .5580 11053  |
| .0127  | .8482 64780  | .5295 72340  | .1948 93620  | .5581 30535  |
| .0128  | .8483 17733  | .5294 87510  | .1950 49439  | .5582 50032  |
| .0129  | .8483 70678  | .5294 02676  | .1952 05270  | .5583 69544  |
| 1.0130 | 0.8484 23614 | 0.5293 17836 | 1.1953 61113 | 1.5584 89073 |
| .0131  | .8484 76541  | .5292 32991  | .1955 16968  | .5586 08617  |
| .0132  | .8485 29460  | .5291 48141  | .1956 72835  | .5587 28176  |
| .0133  | .8485 82371  | .5290 63285  | .1958 28713  | .5588 47751  |
| .0134  | .8486 35273  | .5289 78424  | .1959 84604  | .5589 67342  |
| 1.0135 | 0.8486 88167 | 0.5288 93558 | 1.1961 40507 | 1.5590 86948 |
| .0136  | .8487 41052  | .5288 08687  | .1962 96421  | .5592 06570  |
| .0137  | .8487 93928  | .5287 23810  | .1964 52348  | .5593 26207  |
| .0138  | .8488 46796  | .5286 38928  | .1966 08287  | .5594 45861  |
| .0139  | .8488 99656  | .5285 54041  | .1967 64237  | .5595 65529  |
| 1.0140 | 0.8489 52507 | 0.5284 69148 | 1.1969 20200 | 1.5596 85213 |
| .0141  | .8490 05350  | .5283 84250  | .1970 76174  | .5598 04913  |
| .0142  | .8490 58184  | .5282 99347  | .1972 32161  | .5599 24629  |
| .0143  | .8491 11010  | .5282 14439  | .1973 88159  | .5600 44360  |
| .0144  | .8491 63827  | .5281 29525  | .1975 44170  | .5601 64106  |
| 1.0145 | 0.8492 16636 | 0.5280 44606 | 1.1977 00192 | 1.5602 83868 |
| .0146  | .8492 69436  | .5279 59682  | .1978 56226  | .5604 03646  |
| .0147  | .8493 22228  | .5278 74752  | .1980 12273  | .5605 23440  |
| .0148  | .8493 75011  | .5277 89817  | .1981 68331  | .5606 43249  |
| .0149  | .8494 27786  | .5277 04877  | .1983 24401  | .5607 63073  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.0150 | 0.8494 80552 | 0.5276 19932 | 1.1984 80484 | 1.5608 82914 |
| .0151  | .8495 33310  | .5275 34981  | .1986 36578  | .5610 02769  |
| .0152  | .8495 86059  | .5274 50025  | .1987 92684  | .5611 22641  |
| .0153  | .8496 38800  | .5273 65064  | .1989 48803  | .5612 42528  |
| .0154  | .8496 91532  | .5272 80097  | .1991 04933  | .5613 62431  |
| 1.0155 | 0.8497 44256 | 0.5271 95125 | 1.1992 61075 | 1.5614 82349 |
| .0156  | .8497 96971  | .5271 10148  | .1994 17229  | .5616 02283  |
| .0157  | .8498 49678  | .5270 25166  | .1995 73396  | .5617 22232  |
| .0158  | .8499 02376  | .5269 40178  | .1997 29574  | .5618 42198  |
| .0159  | .8499 55066  | .5268 55185  | .1998 85764  | .5619 62178  |
| 1.0160 | 0.8500 07747 | 0.5267 70187 | 1.2000 41966 | 1.5620 82175 |
| .0161  | .8500 60420  | .5266 85184  | .2001 98180  | .5622 02187  |
| .0162  | .8501 13084  | .5266 00175  | .2003 54407  | .5623 22214  |
| .0163  | .8501 65740  | .5265 15161  | .2005 10645  | .5624 42258  |
| .0164  | .8502 18387  | .5264 30142  | .2006 66895  | .5625 62316  |
| 1.0165 | 0.8502 71026 | 0.5263 45118 | 1.2008 23157 | 1.5626 82391 |
| .0166  | .8503 23656  | .5262 60088  | .2009 79432  | .5628 02481  |
| .0167  | .8503 76278  | .5261 75053  | .2011 35718  | .5629 22587  |
| .0168  | .8504 28691  | .5260 90013  | .2012 92016  | .5630 42708  |
| .0169  | .8504 81496  | .5260 04967  | .2014 48326  | .5631 62845  |
| 1.0170 | 0.8505 34092 | 0.5259 19916 | 1.2016 04649 | 1.5632 82998 |
| .0171  | .8505 86680  | .5258 34860  | .2017 60983  | .5634 03166  |
| .0172  | .8506 39259  | .5257 49799  | .2019 17329  | .5635 23350  |
| .0173  | .8506 91830  | .5256 64732  | .2020 73688  | .5636 43550  |
| .0174  | .8507 44392  | .5255 79661  | .2022 30058  | .5637 63765  |
| 1.0175 | 0.8507 96946 | 0.5254 94584 | 1.2023 86440 | 1.5638 83996 |
| .0176  | .8508 49491  | .5254 09501  | .2025 42835  | .5640 04242  |
| .0177  | .8509 02027  | .5253 24414  | .2026 99241  | .5641 24504  |
| .0178  | .8509 54556  | .5252 39321  | .2028 55660  | .5642 44782  |
| .0179  | .8510 07075  | .5251 54223  | .2030 12090  | .5643 65075  |
| 1.0180 | 0.8510 59587 | 0.5250 69119 | 1.2031 68533 | 1.5644 85384 |
| .0181  | .8511 12089  | .5249 84011  | .2033 24987  | .5646 05709  |
| .0182  | .8511 64583  | .5248 98897  | .2034 81454  | .5647 26049  |
| .0183  | .8512 17069  | .5248 13778  | .2036 37932  | .5648 46405  |
| .0184  | .8512 69546  | .5247 28654  | .2037 94423  | .5649 66777  |
| 1.0185 | 0.8513 22015 | 0.5246 43524 | 1.2039 50926 | 1.5650 87164 |
| .0186  | .8513 74475  | .5245 58389  | .2041 07441  | .5652 07567  |
| .0187  | .8514 26926  | .5244 73249  | .2042 63967  | .5653 27986  |
| .0188  | .8514 79369  | .5243 88104  | .2044 20506  | .5654 48420  |
| .0189  | .8515 31804  | .5243 02953  | .2045 77057  | .5655 68870  |
| 1.0190 | 0.8515 84230 | 0.5242 17797 | 1.2047 33620 | 1.5656 89335 |
| .0191  | .8516 36648  | .5241 32636  | .2048 90195  | .5658 09817  |
| .0192  | .8516 89057  | .5240 47470  | .2050 46782  | .5659 30313  |
| .0193  | .8517 41457  | .5239 62299  | .2052 03381  | .5660 50826  |
| .0194  | .8517 93849  | .5238 77122  | .2053 59992  | .5661 71354  |
| 1.0195 | 0.8518 46232 | 0.5237 91940 | 1.2055 16615 | 1.5662 91898 |
| .0196  | .8518 98607  | .5237 06753  | .2056 73250  | .5664 12457  |
| .0197  | .8519 50974  | .5236 21560  | .2058 29898  | .5665 33033  |
| .0198  | .8520 03332  | .5235 36362  | .2059 86557  | .5666 53623  |
| .0199  | .8520 55681  | .5234 51159  | .2061 43228  | .5667 74230  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.0200 | 0.8521 08022 | 0.5233 65951 | 1.2062 99912 | 1.5668 94852 |
| .0201  | .8521 60354  | .5232 80738  | .2064 56607  | .5670 15490  |
| .0202  | .8522 12678  | .5231 95519  | .2066 13315  | .5671 36143  |
| .0203  | .8522 64993  | .5231 10295  | .2067 70035  | .5672 56813  |
| .0204  | .8523 17300  | .5230 25066  | .2069 26766  | .5673 77497  |
| 1.0205 | 0.8523 69598 | 0.5229 39832 | 1.2070 83510 | 1.5674 98198 |
| .0206  | .8524 21888  | .5228 54592  | .2072 40266  | .5676 18914  |
| .0207  | .8524 74169  | .5227 69347  | .2073 97034  | .5677 39646  |
| .0208  | .8525 26442  | .5226 84097  | .2075 53814  | .5678 60394  |
| .0209  | .8525 78706  | .5225 98842  | .2077 10606  | .5679 81157  |
| 1.0210 | 0.8526 30962 | 0.5225 13582 | 1.2078 67410 | 1.5681 01936 |
| .0211  | .8526 83209  | .5224 28316  | .2080 24226  | .5682 22730  |
| .0212  | .8527 35447  | .5223 43045  | .2081 81055  | .5683 43540  |
| .0213  | .8527 87677  | .5222 57769  | .2083 37895  | .5684 64366  |
| .0214  | .8528 39899  | .5221 72488  | .2084 94748  | .5685 85208  |
| 1.0215 | 0.8528 92112 | 0.5220 87201 | 1.2086 51612 | 1.5687 06065 |
| .0216  | .8529 44316  | .5220 01909  | .2088 08489  | .5688 26938  |
| .0217  | .8529 96512  | .5219 16612  | .2089 65378  | .5689 47827  |
| .0218  | .8530 48700  | .5218 31310  | .2091 22278  | .5690 68731  |
| .0219  | .8531 00879  | .5217 46002  | .2092 79191  | .5691 89652  |
| 1.0220 | 0.8531 53049 | 0.5216 60690 | 1.2094 36116 | 1.5693 10587 |
| .0221  | .8532 05211  | .5215 75372  | .2095 93053  | .5694 31539  |
| .0222  | .8532 57364  | .5214 90049  | .2097 50003  | .5695 52506  |
| .0223  | .8533 09509  | .5214 04720  | .2099 06964  | .5696 73489  |
| .0224  | .8533 61645  | .5213 19387  | .2100 63937  | .5697 94487  |
| 1.0225 | 0.8534 13773 | 0.5212 34048 | 1.2102 20923 | 1.5699 15502 |
| .0226  | .8534 65892  | .5211 48704  | .2103 77920  | .5700 36531  |
| .0227  | .8535 18002  | .5210 63355  | .2105 34930  | .5701 57577  |
| .0228  | .8535 70104  | .5209 78000  | .2106 91952  | .5702 78638  |
| .0229  | .8536 22198  | .5208 92641  | .2108 48986  | .5703 99716  |
| 1.0230 | 0.8536 74283 | 0.5208 07276 | 1.2110 06032 | 1.5705 20808 |
| .0231  | .8537 26359  | .5207 21906  | .2111 63090  | .5706 41917  |
| .0232  | .8537 78427  | .5206 36531  | .2113 20160  | .5707 63041  |
| .0233  | .8538 30487  | .5205 51150  | .2114 77243  | .5708 84181  |
| .0234  | .8538 82538  | .5204 65765  | .2116 34337  | .5710 05336  |
| 1.0235 | 0.8539 34580 | 0.5203 80374 | 1.2117 91444 | 1.5711 26508 |
| .0236  | .8539 86614  | .5202 94978  | .2119 48562  | .5712 47695  |
| .0237  | .8540 38639  | .5202 09576  | .2121 05693  | .5713 68897  |
| .0238  | .8540 90656  | .5201 24170  | .2122 62836  | .5714 90116  |
| .0239  | .8541 42664  | .5200 38758  | .2124 19991  | .5716 11350  |
| 1.0240 | 0.8541 94663 | 0.5199 53341 | 1.2125 77158 | 1.5717 32600 |
| .0241  | .8542 46654  | .5198 67919  | .2127 34338  | .5718 53865  |
| .0242  | .8542 98637  | .5197 82492  | .2128 91529  | .5719 75147  |
| .0243  | .8543 50611  | .5196 97060  | .2130 48733  | .5720 96444  |
| .0244  | .8544 02576  | .5196 11622  | .2132 05948  | .5722 17756  |
| 1.0245 | 0.8544 54533 | 0.5195 26179 | 1.2133 63176 | 1.5723 39085 |
| .0246  | .8545 06482  | .5194 40731  | .2135 20416  | .5724 60429  |
| .0247  | .8545 58421  | .5193 55278  | .2136 77668  | .5725 81789  |
| .0248  | .8546 10353  | .5192 69819  | .2138 34933  | .5727 03165  |
| .0249  | .8546 62275  | .5191 84356  | .2139 92209  | .5728 24556  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.0250 | 0.8547 14189 | 0.5190 98887 | 1.2141 49498 | 1.5729 45963 |
| .0251  | .8547 66095  | .5190 13413  | .2143 06798  | .5730 67386  |
| .0252  | .8548 17992  | .5189 27934  | .2144 64111  | .5731 88824  |
| .0253  | .8548 69881  | .5188 42449  | .2146 21436  | .5733 10279  |
| .0254  | .8549 21761  | .5187 56960  | .2147 78773  | .5734 31749  |
| 1.0255 | 0.8549 73632 | 0.5186 71465 | 1.2149 36122 | 1.5735 53234 |
| .0256  | .8550 25495  | .5185 85965  | .2150 93484  | .5736 74736  |
| .0257  | .8550 77349  | .5185 00460  | .2152 50857  | .5737 96253  |
| .0258  | .8551 29195  | .5184 14949  | .2154 08243  | .5739 17786  |
| .0259  | .8551 81032  | .5183 29434  | .2155 65641  | .5740 39335  |
| 1.0260 | 0.8552 32861 | 0.5182 43913 | 1.2157 23051 | 1.5741 60899 |
| .0261  | .8552 84681  | .5181 58387  | .2158 80473  | .5742 82479  |
| .0262  | .8553 36493  | .5180 72856  | .2160 37907  | .5744 04075  |
| .0263  | .8553 88296  | .5179 87320  | .2161 95354  | .5745 25687  |
| .0264  | .8554 40090  | .5179 01779  | .2163 52813  | .5746 47314  |
| 1.0265 | 0.8554 91876 | 0.5178 16232 | 1.2165 10283 | 1.5747 68957 |
| .0266  | .8555 43653  | .5177 30680  | .2166 67766  | .5748 90616  |
| .0267  | .8555 95422  | .5176 45123  | .2168 25261  | .5750 12291  |
| .0268  | .8556 47182  | .5175 59561  | .2169 82769  | .5751 33981  |
| .0269  | .8556 98934  | .5174 73994  | .2171 40288  | .5752 55688  |
| 1.0270 | 0.8557 50677 | 0.5173 88421 | 1.2172 97820 | 1.5753 77409 |
| .0271  | .8558 02412  | .5173 02844  | .2174 55364  | .5754 99147  |
| .0272  | .8558 54138  | .5172 17261  | .2176 12920  | .5756 20901  |
| .0273  | .8559 05855  | .5171 31673  | .2177 70488  | .5757 42670  |
| .0274  | .8559 57564  | .5170 46080  | .2179 28068  | .5758 64455  |
| 1.0275 | 0.8560 09264 | 0.5169 60481 | 1.2180 85061 | 1.5759 86255 |
| .0276  | .8560 60956  | .5168 74878  | .2182 43266  | .5761 08072  |
| .0277  | .8561 12639  | .5167 89269  | .2184 00832  | .5762 29904  |
| .0278  | .8561 64314  | .5167 03655  | .2185 58511  | .5763 51752  |
| .0279  | .8562 15980  | .5166 18036  | .2187 16153  | .5764 73616  |
| 1.0280 | 0.8562 67638 | 0.5165 32412 | 1.2188 73806 | 1.5765 95495 |
| .0281  | .8563 19287  | .5164 46783  | .2190 31472  | .5767 17390  |
| .0282  | .8563 70927  | .5163 61148  | .2191 89150  | .5768 39301  |
| .0283  | .8564 22559  | .5162 75509  | .2193 46840  | .5769 61228  |
| .0284  | .8564 74182  | .5161 89864  | .2195 04542  | .5770 83171  |
| 1.0285 | 0.8565 25797 | 0.5161 04214 | 1.2196 62256 | 1.5772 05129 |
| .0286  | .8565 77403  | .5160 18559  | .2198 19983  | .5773 27103  |
| .0287  | .8566 29000  | .5159 32898  | .2199 77722  | .5774 49093  |
| .0288  | .8566 80589  | .5158 47233  | .2201 35473  | .5775 71099  |
| .0289  | .8567 32170  | .5157 61562  | .2202 93236  | .5776 93120  |
| 1.0290 | 0.8567 83742 | 0.5156 75886 | 1.2204 51011 | 1.5778 15158 |
| .0291  | .8568 35305  | .5155 90205  | .2206 08799  | .5779 37211  |
| .0292  | .8568 86860  | .5155 04519  | .2207 66599  | .5780 59279  |
| .0293  | .8569 38406  | .5154 18828  | .2209 24411  | .5781 81364  |
| .0294  | .8569 89944  | .5153 33132  | .2210 82235  | .5783 03464  |
| 1.0295 | 0.8570 41473 | 0.5152 47430 | 1.2212 40072 | 1.5784 25580 |
| .0296  | .8570 92993  | .5151 61723  | .2213 97920  | .5785 47712  |
| .0297  | .8571 44505  | .5150 76011  | .2215 55781  | .5786 69860  |
| .0298  | .8571 96008  | .5149 90294  | .2217 13654  | .5787 92023  |
| .0299  | .8572 47503  | .5149 04572  | .2218 71540  | .5789 14203  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.0300 | 0.8572 98989 | 0.5148 18845 | 1.2220 29437 | 1.5790 36398 |
| .0301  | .8573 50467  | .5147 33112  | .2221 87347  | .5791 58608  |
| .0302  | .8574 01936  | .5146 47375  | .2223 45269  | .5792 80835  |
| .0303  | .8574 53396  | .5145 61632  | .2225 03203  | .5794 03078  |
| .0304  | .8575 04848  | .5144 75884  | .2226 61149  | .5795 25336  |
| 1.0305 | 0.8575 56291 | 0.5143 90131 | 1.2228 19108 | 1.5796 47610 |
| .0306  | .8576 07726  | .5143 04373  | .2229 77079  | .5797 69900  |
| .0307  | .8576 59152  | .5142 18610  | .2231 35062  | .5798 92205  |
| .0308  | .8577 10570  | .5141 32841  | .2232 93057  | .5800 14527  |
| .0309  | .8577 61979  | .5140 47067  | .2234 51065  | .5801 36864  |
| 1.0310 | 0.8578 13379 | 0.5139 61289 | 1.2236 09085 | 1.5802 59217 |
| .0311  | .8578 64771  | .5138 75505  | .2237 67117  | .5803 81586  |
| .0312  | .8579 16154  | .5137 89716  | .2239 25161  | .5805 03970  |
| .0313  | .8579 67529  | .5137 03922  | .2240 83218  | .5806 26371  |
| .0314  | .8580 18895  | .5136 18122  | .2242 41286  | .5807 48787  |
| 1.0315 | 0.8580 70253 | 0.5135 32318 | 1.2243 99367 | 1.5808 71219 |
| .0316  | .8581 21602  | .5134 46508  | .2245 57461  | .5809 93667  |
| .0317  | .8581 72942  | .5133 60693  | .2247 15566  | .5811 16130  |
| .0318  | .8582 24274  | .5132 74874  | .2248 73684  | .5812 38610  |
| .0319  | .8582 75597  | .5131 89049  | .2250 31814  | .5813 61105  |
| 1.0320 | 0.8583 26912 | 0.5131 03218 | 1.2251 89956 | 1.5814 83616 |
| .0321  | .8583 78218  | .5130 17383  | .2253 48111  | .5816 06143  |
| .0322  | .8584 29515  | .5129 31543  | .2255 06277  | .5817 28686  |
| .0323  | .8584 80804  | .5128 45697  | .2256 64456  | .5818 51244  |
| .0324  | .8585 32084  | .5127 59847  | .2258 22648  | .5819 73819  |
| 1.0325 | 0.8585 83356 | 0.5126 73991 | 1.2259 80851 | 1.5820 96409 |
| .0326  | .8586 34619  | .5125 88130  | .2261 39067  | .5822 19015  |
| .0327  | .8586 85874  | .5125 02264  | .2262 97295  | .5823 41637  |
| .0328  | .8587 37119  | .5124 16393  | .2264 55535  | .5824 64274  |
| .0329  | .8587 88357  | .5123 30517  | .2266 13788  | .5825 86928  |
| 1.0330 | 0.8588 39586 | 0.5122 44635 | 1.2267 72052 | 1.5827 09597 |
| .0331  | .8588 90806  | .5121 58749  | .2269 30330  | .5828 32282  |
| .0332  | .8589 42017  | .5120 72857  | .2270 88619  | .5829 54983  |
| .0333  | .8589 93220  | .5119 86960  | .2272 46921  | .5830 77700  |
| .0334  | .8590 44415  | .5119 01058  | .2274 05234  | .5832 00433  |
| 1.0335 | 0.8590 95601 | 0.5118 15151 | 1.2275 63561 | 1.5833 23181 |
| .0336  | .8591 46778  | .5117 29239  | .2277 21899  | .5834 45945  |
| .0337  | .8591 97946  | .5116 43322  | .2278 80250  | .5835 68725  |
| .0338  | .8592 49106  | .5115 57400  | .2280 38613  | .5836 91521  |
| .0339  | .8593 00258  | .5114 71472  | .2281 96988  | .5838 14333  |
| 1.0340 | 0.8593 51401 | 0.5113 85540 | 1.2283 55376 | 1.5839 37161 |
| .0341  | .8594 02535  | .5112 99602  | .2285 13776  | .5840 60004  |
| .0342  | .8594 53661  | .5112 13659  | .2286 72188  | .5841 82863  |
| .0343  | .8595 04778  | .5111 27711  | .2288 30612  | .5843 05739  |
| .0344  | .8595 55886  | .5110 41758  | .2289 89049  | .5844 28630  |
| 1.0345 | 0.8596 06986 | 0.5109 55800 | 1.2291 47498 | 1.5845 51536 |
| .0346  | .8596 58077  | .5108 69837  | .2293 05959  | .5846 74459  |
| .0347  | .8597 09160  | .5107 83868  | .2294 64433  | .5847 97398  |
| .0348  | .8597 60234  | .5106 97895  | .2296 22919  | .5849 20352  |
| .0349  | .8598 11300  | .5106 11916  | .2297 81417  | .5850 43322  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.0350 | 0.8598 62356 | 0.5105 25933 | 1.2299 39927 | 1.5651 66308 |
| .0351  | .8599 13405  | .5104 39944  | .2300 93450  | .5652 89310  |
| .0352  | .8599 64444  | .5103 53950  | .2302 56985  | .5654 12328  |
| .0353  | .8600 15476  | .5102 67951  | .2304 15533  | .5655 25362  |
| .0354  | .8600 66498  | .5101 81947  | .2305 74092  | .5656 38411  |
| 1.0355 | 0.8601 17512 | 0.5100 95938 | 1.2307 32664 | 1.5657 81476 |
| .0356  | .8601 68517  | .5100 09923  | .2308 91249  | .5659 04558  |
| .0357  | .8602 19514  | .5099 23904  | .2310 49845  | .5660 27655  |
| .0358  | .8602 70502  | .5098 37879  | .2312 08454  | .5661 50768  |
| .0359  | .8603 21482  | .5097 51850  | .2313 67075  | .5662 73896  |
| 1.0360 | 0.8603 72452 | 0.5096 65815 | 1.2315 25709 | 1.5663 97041 |
| .0361  | .8604 23415  | .5095 79775  | .2316 84355  | .5665 20201  |
| .0362  | .8604 74368  | .5094 93731  | .2318 43013  | .5666 43378  |
| .0363  | .8605 25313  | .5094 07681  | .2320 01683  | .5667 66570  |
| .0364  | .8605 76250  | .5093 21625  | .2321 60366  | .5668 89778  |
| 1.0365 | 0.8606 27178 | 0.5092 35565 | 1.2323 19061 | 1.5670 13002 |
| .0366  | .8606 78097  | .5091 49500  | .2324 77769  | .5671 36242  |
| .0367  | .8607 29008  | .5090 63430  | .2326 36489  | .5672 59498  |
| .0368  | .8607 79910  | .5089 77354  | .2327 95221  | .5673 82769  |
| .0369  | .8608 30803  | .5088 91274  | .2329 53965  | .5675 06057  |
| 1.0370 | 0.8608 81688 | 0.5088 05188 | 1.2331 12722 | 1.5676 29360 |
| .0371  | .8609 32564  | .5087 19097  | .2332 71491  | .5677 52679  |
| .0372  | .8609 83432  | .5086 33002  | .2334 30272  | .5678 76014  |
| .0373  | .8610 34291  | .5085 46901  | .2335 89066  | .5679 99365  |
| .0374  | .8610 85141  | .5084 60795  | .2337 47872  | .5681 22732  |
| 1.0375 | 0.8611 35983 | 0.5083 74684 | 1.2339 06691 | 1.5682 46115 |
| .0376  | .8611 86816  | .5082 88567  | .2340 65522  | .5683 69514  |
| .0377  | .8612 37641  | .5082 02446  | .2342 24365  | .5684 92928  |
| .0378  | .8612 88457  | .5081 16320  | .2343 83220  | .5686 16358  |
| .0379  | .8613 39264  | .5080 30189  | .2345 42088  | .5687 39805  |
| 1.0380 | 0.8613 90063 | 0.5079 44052 | 1.2347 00968 | 1.5688 63267 |
| .0381  | .8614 40853  | .5078 57911  | .2348 59861  | .5689 86745  |
| .0382  | .8614 91634  | .5077 71764  | .2350 18765  | .5691 10239  |
| .0383  | .8615 42407  | .5076 85612  | .2351 77683  | .5692 33749  |
| .0384  | .8615 93171  | .5075 99455  | .2353 36612  | .5693 57274  |
| 1.0385 | 0.8616 43927 | 0.5075 13294 | 1.2354 95554 | 1.5694 80816 |
| .0386  | .8616 94674  | .5074 27127  | .2356 54508  | .5696 04373  |
| .0387  | .8617 45412  | .5073 40955  | .2358 13475  | .5697 27947  |
| .0388  | .8617 96142  | .5072 54778  | .2359 72454  | .5698 51536  |
| .0389  | .8618 46863  | .5071 68595  | .2361 31445  | .5699 75141  |
| 1.0390 | 0.8618 97576 | 0.5070 82408 | 1.2362 90449 | 1.5900 98762 |
| .0391  | .8619 48280  | .5069 96216  | .2364 49465  | .5902 22399  |
| .0392  | .8619 98975  | .5069 10019  | .2366 08494  | .5903 46052  |
| .0393  | .8620 49662  | .5068 23816  | .2367 67534  | .5904 69721  |
| .0394  | .8621 00340  | .5067 37609  | .2369 26587  | .5905 93406  |
| 1.0395 | 0.8621 51009 | 0.5066 51396 | 1.2370 85653 | 1.5907 17106 |
| .0396  | .8622 01670  | .5065 65178  | .2372 44731  | .5908 40823  |
| .0397  | .8622 52322  | .5064 78956  | .2374 03821  | .5909 64555  |
| .0398  | .8623 02966  | .5063 92728  | .2375 62924  | .5910 88304  |
| .0399  | .8623 53601  | .5063 06495  | .2377 22039  | .5912 12068  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.0400 | 0.8624 04227 | 0.5062 20257 | 1.2378 81166 | 1.5913 35848 |
| .0401  | .8624 54845  | .5061 34014  | .2380 40306  | .5914 59644  |
| .0402  | .8625 05454  | .5060 47766  | .2381 99458  | .5915 83456  |
| .0403  | .8625 56055  | .5059 61513  | .2383 58623  | .5917 07284  |
| .0404  | .8626 06646  | .5058 75255  | .2385 17800  | .5918 31128  |
| 1.0405 | 0.8626 57230 | 0.5057 88992 | 1.2386 76989 | 1.5919 54988 |
| .0406  | .8627 07804  | .5057 02724  | .2388 36191  | .5920 78863  |
| .0407  | .8627 58370  | .5056 16450  | .2389 95405  | .5922 02755  |
| .0408  | .8628 08927  | .5055 30172  | .2391 54631  | .5923 26662  |
| .0409  | .8628 59476  | .5054 43889  | .2393 13870  | .5924 50586  |
| 1.0410 | 0.8629 10016 | 0.5053 57600 | 1.2394 73121 | 1.5925 74525 |
| .0411  | .8629 60548  | .5052 71307  | .2396 32385  | .5926 98480  |
| .0412  | .8630 11070  | .5051 85008  | .2397 91661  | .5928 22452  |
| .0413  | .8630 61585  | .5050 98704  | .2399 50949  | .5929 46439  |
| .0414  | .8631 12090  | .5050 12396  | .2401 10250  | .5930 70442  |
| 1.0415 | 0.8631 62587 | 0.5049 26082 | 1.2402 69563 | 1.5931 94461 |
| .0416  | .8632 13075  | .5048 39763  | .2404 28889  | .5933 18496  |
| .0417  | .8632 63555  | .5047 53439  | .2405 88227  | .5934 42547  |
| .0418  | .8633 14026  | .5046 67110  | .2407 47578  | .5935 66613  |
| .0419  | .8633 64489  | .5045 80776  | .2409 06941  | .5936 90696  |
| 1.0420 | 0.8634 14942 | 0.5044 94437 | 1.2410 66316 | 1.5938 14795 |
| .0421  | .8634 65387  | .5044 08093  | .2412 25703  | .5939 38909  |
| .0422  | .8635 15824  | .5043 21744  | .2413 85104  | .5940 63040  |
| .0423  | .8635 66252  | .5042 35390  | .2415 44516  | .5941 87186  |
| .0424  | .8636 16671  | .5041 49031  | .2417 03941  | .5943 11349  |
| 1.0425 | 0.8636 67082 | 0.5040 62667 | 1.2418 63378 | 1.5944 35527 |
| .0426  | .8637 17484  | .5039 76298  | .2420 22828  | .5945 59722  |
| .0427  | .8637 67877  | .5038 89923  | .2421 82290  | .5946 83932  |
| .0428  | .8638 18261  | .5038 03544  | .2423 41765  | .5948 08158  |
| .0429  | .8638 68638  | .5037 17160  | .2425 01252  | .5949 32400  |
| 1.0430 | 0.8639 19005 | 0.5036 30770 | 1.2426 60751 | 1.5950 56658 |
| .0431  | .8639 69364  | .5035 44376  | .2428 20263  | .5951 80932  |
| .0432  | .8640 19714  | .5034 57977  | .2429 79788  | .5953 05222  |
| .0433  | .8640 70055  | .5033 71572  | .2431 39324  | .5954 29528  |
| .0434  | .8641 20388  | .5032 85163  | .2432 98873  | .5955 53850  |
| 1.0435 | 0.8641 70712 | 0.5031 98748 | 1.2434 58435 | 1.5956 78188 |
| .0436  | .8642 21028  | .5031 12328  | .2436 18009  | .5958 02542  |
| .0437  | .8642 71335  | .5030 25904  | .2437 77596  | .5959 26912  |
| .0438  | .8643 21633  | .5029 39474  | .2439 37194  | .5960 51297  |
| .0439  | .8643 71923  | .5028 53039  | .2440 96806  | .5961 75699  |
| 1.0440 | 0.8644 22204 | 0.5027 66600 | 1.2442 56430 | 1.5963 00117 |
| .0441  | .8644 72476  | .5026 80155  | .2444 16066  | .5964 24550  |
| .0442  | .8645 22740  | .5025 93705  | .2445 75715  | .5965 49000  |
| .0443  | .8645 72995  | .5025 07250  | .2447 35376  | .5966 73465  |
| .0444  | .8646 23241  | .5024 20791  | .2448 95049  | .5967 97947  |
| 1.0445 | 0.8646 73479 | 0.5023 34326 | 1.2450 54735 | 1.5969 22445 |
| .0446  | .8647 23708  | .5022 47856  | .2452 14434  | .5970 46958  |
| .0447  | .8647 73928  | .5021 61381  | .2453 74145  | .5971 71487  |
| .0448  | .8648 24140  | .5020 74901  | .2455 33868  | .5972 96033  |
| .0449  | .8648 74343  | .5019 88416  | .2456 93604  | .5974 20594  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.0450 | 0.8649 24538 | 0.5019 01926 | 1.2458 53352 | 1.5975 45172 |
| .0451  | .8649 74724  | .5018 15431  | .2460 13113  | .5976 69765  |
| .0452  | .8650 24901  | .5017 28931  | .2461 72886  | .5977 94374  |
| .0453  | .8650 75070  | .5016 42426  | .2463 32672  | .5979 18999  |
| .0454  | .8651 25230  | .5015 55916  | .2464 92470  | .5980 43641  |
| 1.0455 | 0.8651 75381 | 0.5014 69401 | 1.2466 52280 | 1.5981 68298 |
| .0456  | .8652 25523  | .5013 82881  | .2468 12104  | .5982 92971  |
| .0457  | .8652 75657  | .5012 96356  | .2469 71939  | .5984 17660  |
| .0458  | .8653 25783  | .5012 09826  | .2471 31787  | .5985 42366  |
| .0459  | .8653 75899  | .5011 23291  | .2472 91648  | .5986 67087  |
| 1.0460 | 0.8654 26007 | 0.5010 36751 | 1.2474 51521 | 1.5987 91824 |
| .0461  | .8654 76107  | .5009 50206  | .2476 11406  | .5989 16577  |
| .0462  | .8655 26197  | .5008 63656  | .2477 71304  | .5990 41346  |
| .0463  | .8655 76279  | .5007 77101  | .2479 31214  | .5991 66131  |
| .0464  | .8656 26353  | .5006 90541  | .2480 91137  | .5992 90932  |
| 1.0465 | 0.8656 76418 | 0.5006 03975 | 1.2482 51072 | 1.5994 15749 |
| .0466  | .8657 26474  | .5005 17405  | .2484 11020  | .5995 40583  |
| .0467  | .8657 76521  | .5004 30830  | .2485 70980  | .5996 65432  |
| .0468  | .8658 26560  | .5003 44250  | .2487 30953  | .5997 90297  |
| .0469  | .8658 76590  | .5002 57665  | .2488 90939  | .5999 15178  |
| 1.0470 | 0.8659 26611 | 0.5001 71075 | 1.2490 50936 | 1.6000 40075 |
| .0471  | .8659 76624  | .5000 84479  | .2492 10947  | .6001 64988  |
| .0472  | .8660 26628  | .4999 97879  | .2493 70969  | .6002 89917  |
| .0473  | .8660 76624  | .4999 11274  | .2495 31005  | .6004 14862  |
| .0474  | .8661 26610  | .4998 24664  | .2496 91052  | .6005 39823  |
| 1.0475 | 0.8661 76589 | 0.4997 38049 | 1.2498 51113 | 1.6006 64800 |
| .0476  | .8662 26558  | .4996 51429  | .2500 11185  | .6007 89794  |
| .0477  | .8662 76519  | .4995 64803  | .2501 71270  | .6009 14803  |
| .0478  | .8663 26471  | .4994 78173  | .2503 31368  | .6010 39828  |
| .0479  | .8663 76414  | .4993 91538  | .2504 91478  | .6011 64869  |
| 1.0480 | 0.8664 26349 | 0.4993 04898 | 1.2506 51601 | 1.6012 89926 |
| .0481  | .8664 76275  | .4992 18253  | .2508 11736  | .6014 14999  |
| .0482  | .8665 26193  | .4991 31603  | .2509 71884  | .6015 40088  |
| .0483  | .8665 76102  | .4990 44948  | .2511 32044  | .6016 65194  |
| .0484  | .8666 26002  | .4989 58288  | .2512 92217  | .6017 90315  |
| 1.0485 | 0.8666 75893 | 0.4988 71622 | 1.2514 52403 | 1.6019 15452 |
| .0486  | .8667 25776  | .4987 84952  | .2516 12600  | .6020 40605  |
| .0487  | .8667 75650  | .4986 98277  | .2517 72811  | .6021 65775  |
| .0488  | .8668 25516  | .4986 11597  | .2519 33033  | .6022 90960  |
| .0489  | .8668 75373  | .4985 24912  | .2520 93269  | .6024 16161  |
| 1.0490 | 0.8669 25221 | 0.4984 38222 | 1.2522 53517 | 1.6025 41379 |
| .0491  | .8669 75060  | .4983 51527  | .2524 13777  | .6026 66612  |
| .0492  | .8670 24891  | .4982 64827  | .2525 71050  | .6027 91861  |
| .0493  | .8670 74713  | .4981 78122  | .2527 34335  | .6029 17127  |
| .0494  | .8671 24527  | .4980 91412  | .2528 94633  | .6030 42408  |
| 1.0495 | 0.8671 74332 | 0.4980 04697 | 1.2530 54944 | 1.6031 67706 |
| .0496  | .8672 24128  | .4979 17977  | .2532 15267  | .6032 93019  |
| .0497  | .8672 73915  | .4978 31252  | .2533 75603  | .6034 18349  |
| .0498  | .8673 23694  | .4977 44523  | .2535 35951  | .6035 43694  |
| .0499  | .8673 73464  | .4976 57788  | .2536 96311  | .6036 69056  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.0500 | 0.8674 23226 | 0.4975 71048 | 1.2538 56684 | 1.6037 94434 |
| .0501  | .8674 72978  | .4974 84303  | .2540 17070  | .6039 19827  |
| .0502  | .8675 22722  | .4973 97553  | .2541 77468  | .6040 45237  |
| .0503  | .8675 72458  | .4973 10799  | .2543 37879  | .6041 70663  |
| .0504  | .8676 22185  | .4972 24039  | .2544 98303  | .6042 96105  |
| 1.0505 | 0.8676 71903 | 0.4971 37274 | 1.2546 58738 | 1.6044 21562 |
| .0506  | .8677 21612  | .4970 50504  | .2548 19187  | .6045 47036  |
| .0507  | .8677 71313  | .4969 63730  | .2549 79648  | .6046 72526  |
| .0508  | .8678 21005  | .4968 76950  | .2551 40121  | .6047 98032  |
| .0509  | .8678 70688  | .4967 90166  | .2553 00607  | .6049 23554  |
| 1.0510 | 0.8679 20363 | 0.4967 03376 | 1.2554 61106 | 1.6050 49092 |
| .0511  | .8679 70029  | .4966 16582  | .2556 21617  | .6051 74647  |
| .0512  | .8680 19686  | .4965 29782  | .2557 82141  | .6053 00217  |
| .0513  | .8680 69335  | .4964 42978  | .2559 42677  | .6054 25803  |
| .0514  | .8681 18975  | .4963 56168  | .2561 03226  | .6055 51405  |
| 1.0515 | 0.8681 68606 | 0.4962 69354 | 1.2562 63788 | 1.6056 77024 |
| .0516  | .8682 18229  | .4961 82534  | .2564 24362  | .6058 02658  |
| .0517  | .8682 67843  | .4960 95710  | .2565 84948  | .6059 28308  |
| .0518  | .8683 17448  | .4960 08881  | .2567 45547  | .6060 53975  |
| .0519  | .8683 67044  | .4959 22047  | .2569 06159  | .6061 79658  |
| 1.0520 | 0.8684 16632 | 0.4958 35207 | 1.2570 66783 | 1.6063 05356 |
| .0521  | .8684 66211  | .4957 48363  | .2572 27420  | .6064 31071  |
| .0522  | .8685 15782  | .4956 61514  | .2573 88069  | .6065 56802  |
| .0523  | .8685 65344  | .4955 74660  | .2575 48731  | .6066 82549  |
| .0524  | .8686 14897  | .4954 87801  | .2577 09406  | .6068 08311  |
| 1.0525 | 0.8686 64441 | 0.4954 00937 | 1.2578 70093 | 1.6069 34090 |
| .0526  | .8687 13977  | .4953 14068  | .2580 30793  | .6070 59885  |
| .0527  | .8687 63504  | .4952 27194  | .2581 91505  | .6071 85697  |
| .0528  | .8688 13022  | .4951 40316  | .2583 52230  | .6073 11524  |
| .0529  | .8688 62532  | .4950 53432  | .2585 12967  | .6074 37367  |
| 1.0530 | 0.8689 12033 | 0.4949 66543 | 1.2586 73717 | 1.6075 63226 |
| .0531  | .8689 61525  | .4948 79649  | .2588 34480  | .6076 89102  |
| .0532  | .8690 11009  | .4947 92751  | .2589 95255  | .6078 14993  |
| .0533  | .8690 60484  | .4947 05847  | .2591 56043  | .6079 40901  |
| .0534  | .8691 09950  | .4946 18939  | .2593 16843  | .6080 66824  |
| 1.0535 | 0.8691 59408 | 0.4945 32025 | 1.2594 77656 | 1.6081 92764 |
| .0536  | .8692 08857  | .4944 45107  | .2596 38482  | .6083 18720  |
| .0537  | .8692 58297  | .4943 58183  | .2597 99320  | .6084 44692  |
| .0538  | .8693 07728  | .4942 71255  | .2599 60171  | .6085 70680  |
| .0539  | .8693 57151  | .4941 84322  | .2601 21034  | .6086 96684  |
| 1.0540 | 0.8694 06565 | 0.4940 97384 | 1.2602 81910 | 1.6088 22704 |
| .0541  | .8694 55970  | .4940 10441  | .2604 42799  | .6089 48740  |
| .0542  | .8695 05367  | .4939 23492  | .2606 03700  | .6090 74793  |
| .0543  | .8695 54755  | .4938 36539  | .2607 64614  | .6092 00861  |
| .0544  | .8696 04134  | .4937 49582  | .2609 25540  | .6093 26946  |
| 1.0545 | 0.8696 53505 | 0.4936 62619 | 1.2610 86479 | 1.6094 53046 |
| .0546  | .8697 02867  | .4935 75651  | .2612 47431  | .6095 79163  |
| .0547  | .8697 52220  | .4934 88678  | .2614 08395  | .6097 05296  |
| .0548  | .8698 01565  | .4934 01700  | .2615 69372  | .6098 31445  |
| .0549  | .8698 50901  | .4933 14713  | .2617 30361  | .6099 57610  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.0550 | 0.8699 00228 | 0.4932 27730 | 1.2618 91363 | 1.6100 83791 |
| .0551  | .8699 49546  | .4931 40738  | .2620 52378  | .6102 09988  |
| .0552  | .8699 98856  | .4930 53740  | .2622 13405  | .6103 36201  |
| .0553  | .8700 48157  | .4929 66738  | .2623 74445  | .6104 62430  |
| .0554  | .8700 97449  | .4928 79731  | .2625 35498  | .6105 88676  |
| 1.0555 | 0.8701 46733 | 0.4927 92718 | 1.2626 96563 | 1.6107 14938 |
| .0556  | .8701 96008  | .4927 05701  | .2628 57641  | .6108 41215  |
| .0557  | .8702 45274  | .4926 18679  | .2630 18731  | .6109 67509  |
| .0558  | .8702 94531  | .4925 31652  | .2631 79834  | .6110 93819  |
| .0559  | .8703 43780  | .4924 44620  | .2633 40950  | .6112 20145  |
| 1.0560 | 0.8703 93020 | 0.4923 57584 | 1.2635 02078 | 1.6113 46487 |
| .0561  | .8704 42252  | .4922 70542  | .2636 63219  | .6114 72845  |
| .0562  | .8704 91475  | .4921 83495  | .2638 24373  | .6115 99220  |
| .0563  | .8705 40689  | .4920 96443  | .2639 85539  | .6117 25610  |
| .0564  | .8705 89894  | .4920 09387  | .2641 46718  | .6118 52017  |
| 1.0565 | 0.8706 39090 | 0.4919 22325 | 1.2643 07910 | 1.6119 78440 |
| .0566  | .8706 88278  | .4918 35259  | .2644 69114  | .6121 04879  |
| .0567  | .8707 37457  | .4917 48188  | .2646 30330  | .6122 31334  |
| .0568  | .8707 86628  | .4916 61112  | .2647 91560  | .6123 57805  |
| .0569  | .8708 35790  | .4915 74030  | .2649 52802  | .6124 84292  |
| 1.0570 | 0.8708 84943 | 0.4914 86944 | 1.2651 14057 | 1.6126 10795 |
| .0571  | .8709 34087  | .4913 99854  | .2652 75324  | .6127 37315  |
| .0572  | .8709 83223  | .4913 12758  | .2654 36604  | .6128 63850  |
| .0573  | .8710 32350  | .4912 25657  | .2655 97897  | .6129 90402  |
| .0574  | .8710 81468  | .4911 38551  | .2657 59202  | .6131 16970  |
| 1.0575 | 0.8711 30577 | 0.4910 51441 | 1.2659 20520 | 1.6132 43554 |
| .0576  | .8711 79678  | .4909 64325  | .2660 81851  | .6133 70154  |
| .0577  | .8712 28770  | .4908 77205  | .2662 43194  | .6134 96770  |
| .0578  | .8712 77854  | .4907 90079  | .2664 04550  | .6136 23403  |
| .0579  | .8713 26928  | .4907 02949  | .2665 65919  | .6137 50051  |
| 1.0580 | 0.8713 75994 | 0.4906 15814 | 1.2667 27300 | 1.6138 76716 |
| .0581  | .8714 25051  | .4905 28674  | .2668 88694  | .6140 03397  |
| .0582  | .8714 74100  | .4904 41529  | .2670 50101  | .6141 30093  |
| .0583  | .8715 23140  | .4903 54379  | .2672 11520  | .6142 56807  |
| .0584  | .8715 72171  | .4902 67224  | .2673 72952  | .6143 83536  |
| 1.0585 | 0.8716 21193 | 0.4901 80065 | 1.2675 34397 | 1.6145 10281 |
| .0586  | .8716 70207  | .4900 92900  | .2676 95855  | .6146 37043  |
| .0587  | .8717 19212  | .4900 05731  | .2678 57325  | .6147 63820  |
| .0588  | .8717 68208  | .4899 18556  | .2680 18807  | .6148 90614  |
| .0589  | .8718 17195  | .4898 31377  | .2681 80303  | .6150 17424  |
| 1.0590 | 0.8718 66174 | 0.4897 44193 | 1.2683 41811 | 1.6151 44250 |
| .0591  | .8719 15144  | .4896 57004  | .2685 03332  | .6152 71092  |
| .0592  | .8719 64106  | .4895 69810  | .2686 64865  | .6153 97951  |
| .0593  | .8720 13058  | .4894 82611  | .2688 26411  | .6155 24825  |
| .0594  | .8720 62002  | .4893 95407  | .2689 87970  | .6156 51716  |
| 1.0595 | 0.8721 10937 | 0.4893 08198 | 1.2691 49541 | 1.6157 78623 |
| .0596  | .8721 59864  | .4892 20985  | .2693 11126  | .6159 05546  |
| .0597  | .8722 08781  | .4891 33767  | .2694 72723  | .6160 32485  |
| .0598  | .8722 57690  | .4890 46543  | .2696 34332  | .6161 59441  |
| .0599  | .8723 06591  | .4889 59315  | .2697 95954  | .6162 86412  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.0600 | 0.8723 55482 | 0.4888 72082 | 1.2699 57589 | 1.6164 13400 |
| .0601  | .8724 04365  | .4887 84844  | .2701 19237  | .6165 40404  |
| .0602  | .8724 53239  | .4886 97601  | .2702 80898  | .6166 67424  |
| .0603  | .8725 02105  | .4886 10353  | .2704 42571  | .6167 94460  |
| .0604  | .8725 50961  | .4885 23101  | .2706 04256  | .6169 21512  |
| 1.0605 | 0.8725 99809 | 0.4884 35843 | 1.2707 65955 | 1.6170 48581 |
| .0606  | .8726 48649  | .4883 48581  | .2709 27666  | .6171 75665  |
| .0607  | .8726 97479  | .4882 61313  | .2710 89390  | .6173 02766  |
| .0608  | .8727 46301  | .4881 74041  | .2712 51127  | .6174 29883  |
| .0609  | .8727 95114  | .4880 86764  | .2714 12876  | .6175 57016  |
| 1.0610 | 0.8728 43918 | 0.4879 99482 | 1.2715 74638 | 1.6176 84166 |
| .0611  | .8728 92714  | .4879 12195  | .2717 36413  | .6178 11331  |
| .0612  | .8729 41501  | .4878 24904  | .2718 98200  | .6179 38513  |
| .0613  | .8729 90279  | .4877 37607  | .2720 60001  | .6180 65711  |
| .0614  | .8730 39048  | .4876 50305  | .2722 21814  | .6181 92925  |
| 1.0615 | 0.8730 87809 | 0.4875 62999 | 1.2723 83639 | 1.6183 20155 |
| .0616  | .8731 36561  | .4874 75688  | .2725 45478  | .6184 47402  |
| .0617  | .8731 85304  | .4873 88372  | .2727 07329  | .6185 74664  |
| .0618  | .8732 34038  | .4873 01051  | .2728 69192  | .6187 01943  |
| .0619  | .8732 82764  | .4872 13725  | .2730 31069  | .6188 29238  |
| 1.0620 | 0.8733 31481 | 0.4871 26394 | 1.2731 92958 | 1.6189 56549 |
| .0621  | .8733 80189  | .4870 39059  | .2733 54860  | .6190 83877  |
| .0622  | .8734 28889  | .4869 51718  | .2735 16775  | .6192 11220  |
| .0623  | .8734 77580  | .4868 64373  | .2736 78703  | .6193 38580  |
| .0624  | .8735 26262  | .4867 77023  | .2738 40643  | .6194 65956  |
| 1.0625 | 0.8735 74935 | 0.4866 89668 | 1.2740 02596 | 1.6195 93348 |
| .0626  | .8736 23600  | .4866 02308  | .2741 64562  | .6197 20757  |
| .0627  | .8736 72256  | .4865 14943  | .2743 26540  | .6198 48181  |
| .0628  | .8737 20903  | .4864 27573  | .2744 88531  | .6199 75622  |
| .0629  | .8737 69541  | .4863 40199  | .2746 50535  | .6201 03079  |
| 1.0630 | 0.8738 18171 | 0.4862 52819 | 1.2748 12552 | 1.6202 30552 |
| .0631  | .8738 66792  | .4861 65435  | .2749 74581  | .6203 58042  |
| .0632  | .8739 15404  | .4860 78046  | .2751 36623  | .6204 85547  |
| .0633  | .8739 64007  | .4859 90652  | .2752 98678  | .6206 13069  |
| .0634  | .8740 12602  | .4859 03253  | .2754 60746  | .6207 40607  |
| 1.0635 | 0.8740 61188 | 0.4858 15850 | 1.2756 22826 | 1.6208 68161 |
| .0636  | .8741 09765  | .4857 28441  | .2757 84920  | .6209 95731  |
| .0637  | .8741 58334  | .4856 41028  | .2759 47026  | .6211 23181  |
| .0638  | .8742 06893  | .4855 53609  | .2761 09144  | .6212 50921  |
| .0639  | .8742 55444  | .4854 66186  | .2762 71276  | .6213 78540  |
| 1.0640 | 0.8743 03987 | 0.4853 78758 | 1.2764 33420 | 1.6215 06175 |
| .0641  | .8743 52520  | .4852 91325  | .2765 95577  | .6216 33826  |
| .0642  | .8744 01045  | .4852 03888  | .2767 57747  | .6217 61494  |
| .0643  | .8744 49561  | .4851 16445  | .2769 19929  | .6218 89178  |
| .0644  | .8744 98068  | .4850 28998  | .2770 82125  | .6220 16878  |
| 1.0645 | 0.8745 46567 | 0.4849 41546 | 1.2772 44333 | 1.6221 44594 |
| .0646  | .8745 95056  | .4848 54089  | .2774 06554  | .6222 72327  |
| .0647  | .8746 43538  | .4847 66627  | .2775 68787  | .6224 00076  |
| .0648  | .8746 92010  | .4846 79160  | .2777 31034  | .6225 27841  |
| .0649  | .8747 40473  | .4845 91688  | .2778 93293  | .6226 55622  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.0650 | 0.8747 88928 | 0.4845 04212 | 1.2780 55565 | 1.6227 83419 |
| .0651  | .8748 37374  | .4844 16730  | .2782 17849  | .6229 11233  |
| .0652  | .8748 85811  | .4843 29244  | .2783 80147  | .6230 39063  |
| .0653  | .8749 34240  | .4842 41753  | .2785 42457  | .6231 66909  |
| .0654  | .8749 82660  | .4841 54257  | .2787 04780  | .6232 94771  |
| 1.0655 | 0.8750 31071 | 0.4840 66757 | 1.2788 67116 | 1.6234 22650 |
| .0656  | .8750 79473  | .4839 79251  | .2790 29465  | .6235 50545  |
| .0657  | .8751 27867  | .4838 91741  | .2791 91826  | .6236 78456  |
| .0658  | .8751 76252  | .4838 04226  | .2793 54200  | .6238 06383  |
| .0659  | .8752 24628  | .4837 16706  | .2795 16588  | .6239 34327  |
| 1.0660 | 0.8752 72995 | 0.4836 29181 | 1.2796 78987 | 1.6240 62287 |
| .0661  | .8753 21353  | .4835 41651  | .2798 41400  | .6241 90263  |
| .0662  | .8753 69703  | .4834 54116  | .2800 03825  | .6243 18255  |
| .0663  | .8754 18044  | .4833 66577  | .2801 66264  | .6244 46263  |
| .0664  | .8754 66377  | .4832 79033  | .2803 28715  | .6245 74288  |
| 1.0665 | 0.8755 14700 | 0.4831 91484 | 1.2804 91179 | 1.6247 02329 |
| .0666  | .8755 63015  | .4831 03930  | .2806 53655  | .6248 30386  |
| .0667  | .8756 11321  | .4830 16371  | .2808 16145  | .6249 58460  |
| .0668  | .8756 59618  | .4829 28808  | .2809 78647  | .6250 86550  |
| .0669  | .8757 07907  | .4828 41239  | .2811 41162  | .6252 14656  |
| 1.0670 | 0.8757 56186 | 0.4827 53666 | 1.2813 03690 | 1.6253 42778 |
| .0671  | .8758 04457  | .4826 66088  | .2814 66230  | .6254 70916  |
| .0672  | .8758 52720  | .4825 78505  | .2816 28784  | .6255 99071  |
| .0673  | .8759 00973  | .4824 90917  | .2817 91350  | .6257 27242  |
| .0674  | .8759 49218  | .4824 03325  | .2819 53929  | .6258 55428  |
| 1.0675 | 0.8759 97454 | 0.4823 15728 | 1.2821 16521 | 1.6259 83633 |
| .0676  | .8760 45681  | .4822 28125  | .2822 79126  | .6261 11853  |
| .0677  | .8760 93899  | .4821 40518  | .2824 41744  | .6262 40089  |
| .0678  | .8761 42109  | .4820 52907  | .2826 04374  | .6263 68541  |
| .0679  | .8761 90310  | .4819 65290  | .2827 67017  | .6264 96610  |
| 1.0680 | 0.8762 38502 | 0.4818 77669 | 1.2829 29673 | 1.6266 24894 |
| .0681  | .8762 86685  | .4817 90042  | .2830 92342  | .6267 53195  |
| .0682  | .8763 34860  | .4817 02411  | .2832 55024  | .6268 81513  |
| .0683  | .8763 83026  | .4816 14775  | .2834 17719  | .6270 09846  |
| .0684  | .8764 31183  | .4815 27135  | .2835 80426  | .6271 38196  |
| 1.0685 | 0.8764 79331 | 0.4814 39489 | 1.2837 43146 | 1.6272 66563 |
| .0686  | .8765 27471  | .4813 51839  | .2839 05879  | .6273 94945  |
| .0687  | .8765 75602  | .4812 64184  | .2840 68625  | .6275 23344  |
| .0688  | .8766 23724  | .4811 76524  | .2842 31384  | .6276 51759  |
| .0689  | .8766 71837  | .4810 88859  | .2843 94156  | .6277 80190  |
| 1.0690 | 0.8767 19942 | 0.4810 01189 | 1.2845 56940 | 1.6279 08638 |
| .0691  | .8767 68037  | .4809 13515  | .2847 19737  | .6280 37101  |
| .0692  | .8768 16124  | .4808 25836  | .2848 82548  | .6281 65582  |
| .0693  | .8768 64202  | .4807 38152  | .2850 45370  | .6282 94078  |
| .0694  | .8769 12272  | .4806 50463  | .2852 08206  | .6284 22591  |
| 1.0695 | 0.8769 60333 | 0.4805 62769 | 1.2853 71055 | 1.6285 51120 |
| .0696  | .8770 08384  | .4804 75071  | .2855 33917  | .6286 79665  |
| .0697  | .8770 56428  | .4803 87368  | .2856 96791  | .6288 08226  |
| .0698  | .8771 04462  | .4802 99660  | .2858 59678  | .6289 36804  |
| .0699  | .8771 52487  | .4802 11947  | .2860 22578  | .6290 65398  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.0700 | 0.8772 00504 | 0.4801 24229 | 1.2861 85491 | 1.6291 94009 |
| .0701  | .8772 48512  | .4800 36507  | .2863 48417  | .6293 22635  |
| .0702  | .8772 96512  | .4799 48779  | .2865 11356  | .6294 51278  |
| .0703  | .8773 44502  | .4798 61047  | .2866 74307  | .6295 79938  |
| .0704  | .8773 92484  | .4797 73310  | .2868 37272  | .6297 08613  |
| 1.0705 | 0.8774 40457 | 0.4796 85569 | 1.2870 00249 | 1.6298 37305 |
| .0706  | .8774 88421  | .4795 97822  | .2871 63239  | .6299 66013  |
| .0707  | .8775 36376  | .4795 10071  | .2873 26242  | .6300 94738  |
| .0708  | .8775 84323  | .4794 22315  | .2874 89258  | .6302 23479  |
| .0709  | .8776 32261  | .4793 34554  | .2876 52287  | .6303 52236  |
| 1.0710 | 0.8776 80190 | 0.4792 46789 | 1.2876 15329 | 1.6304 81009 |
| .0711  | .8777 28110  | .4791 59019  | .2879 78383  | .6306 09799  |
| .0712  | .8777 76022  | .4790 71243  | .2881 41451  | .6307 38605  |
| .0713  | .8778 23924  | .4789 83463  | .2883 04531  | .6308 67427  |
| .0714  | .8778 71818  | .4788 95678  | .2884 67624  | .6309 96266  |
| 1.0715 | 0.8779 19703 | 0.4788 07889 | 1.2886 30730 | 1.6311 25121 |
| .0716  | .8779 67580  | .4787 20094  | .2887 93849  | .6312 53992  |
| .0717  | .8780 15448  | .4786 32295  | .2889 56981  | .6313 82879  |
| .0718  | .8780 63306  | .4785 44491  | .2891 20126  | .6315 11783  |
| .0719  | .8781 11156  | .4784 56682  | .2892 83283  | .6316 40703  |
| 1.0720 | 0.8781 58998 | 0.4783 68869 | 1.2894 46454 | 1.6317 69640 |
| .0721  | .8782 06830  | .4782 81051  | .2896 09637  | .6318 98593  |
| .0722  | .8782 54654  | .4781 93228  | .2897 72834  | .6320 27562  |
| .0723  | .8783 02469  | .4781 05400  | .2899 36043  | .6321 56547  |
| .0724  | .8783 50275  | .4780 17567  | .2900 99265  | .6322 85549  |
| 1.0725 | 0.8783 98072 | 0.4779 29730 | 1.2902 62500 | 1.6324 14567 |
| .0726  | .8784 45861  | .4778 41887  | .2904 25742  | .6325 43601  |
| .0727  | .8784 93641  | .4777 54040  | .2905 89009  | .6326 72652  |
| .0728  | .8785 41412  | .4776 66189  | .2907 52282  | .6328 01719  |
| .0729  | .8785 89174  | .4775 78332  | .2909 15569  | .6329 30803  |
| 1.0730 | 0.8786 36927 | 0.4774 90471 | 1.2910 78868 | 1.6330 59902 |
| .0731  | .8786 84672  | .4774 02605  | .2912 42181  | .6331 89018  |
| .0732  | .8787 32408  | .4773 14734  | .2914 05506  | .6333 18151  |
| .0733  | .8787 80135  | .4772 26858  | .2915 68845  | .6334 47299  |
| .0734  | .8788 27853  | .4771 38978  | .2917 32196  | .6335 76465  |
| 1.0735 | 0.8788 75563 | 0.4770 51093 | 1.2918 95560 | 1.6337 05646 |
| .0736  | .8789 23264  | .4769 63203  | .2920 58937  | .6338 34844  |
| .0737  | .8789 70955  | .4768 75308  | .2922 22327  | .6339 64058  |
| .0738  | .8790 18639  | .4767 87409  | .2923 85730  | .6340 93288  |
| .0739  | .8790 66313  | .4766 99504  | .2925 49145  | .6342 22535  |
| 1.0740 | 0.8791 13978 | 0.4766 11595 | 1.2927 12574 | 1.6343 51798 |
| .0741  | .8791 61635  | .4765 23682  | .2928 76016  | .6344 81077  |
| .0742  | .8792 09283  | .4764 35763  | .2930 39470  | .6346 10373  |
| .0743  | .8792 56922  | .4763 47840  | .2932 02938  | .6347 39685  |
| .0744  | .8793 04553  | .4762 59912  | .2933 66418  | .6348 69014  |
| 1.0745 | 0.8793 52174 | 0.4761 71979 | 1.2935 29912 | 1.6349 98359 |
| .0746  | .8793 99787  | .4760 84041  | .2936 93418  | .6351 27720  |
| .0747  | .8794 47391  | .4759 96099  | .2938 56937  | .6352 57097  |
| .0748  | .8794 94986  | .4759 08152  | .2940 20469  | .6353 86491  |
| .0749  | .8795 42573  | .4758 20200  | .2941 84015  | .6355 15901  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.0750 | 0.8795 90150 | 0.4757 32243 | 1.2943 47573 | 1.6356 45328 |
| .0751  | .8796 37719  | .4756 44282  | .2945 11144  | .6357 74771  |
| .0752  | .8796 85279  | .4755 56316  | .2946 74728  | .6359 04230  |
| .0753  | .8797 32831  | .4754 68345  | .2948 38324  | .6360 33706  |
| .0754  | .8797 80373  | .4753 80369  | .2950 01934  | .6361 63198  |
| 1.0755 | 0.8798 27907 | 0.4752 92389 | 1.2951 65557 | 1.6362 92706 |
| .0756  | .8798 75431  | .4752 04404  | .2953 29193  | .6364 22231  |
| .0757  | .8799 22947  | .4751 16414  | .2954 92842  | .6365 51772  |
| .0758  | .8799 70455  | .4750 28419  | .2956 56503  | .6366 81329  |
| .0759  | .8800 17953  | .4749 40420  | .2958 20178  | .6368 10903  |
| 1.0760 | 0.8800 65443 | 0.4748 52415 | 1.2959 83865 | 1.6369 40494 |
| .0761  | .8801 12924  | .4747 64406  | .2961 47566  | .6370 70100  |
| .0762  | .8801 60396  | .4746 76393  | .2963 11279  | .6371 99723  |
| .0763  | .8802 07859  | .4745 88374  | .2964 75006  | .6373 29362  |
| .0764  | .8802 55313  | .4745 00351  | .2966 38745  | .6374 59018  |
| 1.0765 | 0.8803 02759 | 0.4744 12323 | 1.2968 02498 | 1.6375 88690 |
| .0766  | .8803 50196  | .4743 24291  | .2969 66263  | .6377 18379  |
| .0767  | .8803 97624  | .4742 36253  | .2971 30041  | .6378 48083  |
| .0768  | .8804 45043  | .4741 48211  | .2972 93833  | .6379 77805  |
| .0769  | .8804 92453  | .4740 60164  | .2974 57637  | .6381 07542  |
| 1.0770 | 0.8805 39855 | 0.4739 72113 | 1.2976 21454 | 1.6382 37296 |
| .0771  | .8805 87248  | .4738 84056  | .2977 85284  | .6383 67066  |
| .0772  | .8806 34632  | .4737 95995  | .2979 49128  | .6384 96853  |
| .0773  | .8806 82007  | .4737 07929  | .2981 12984  | .6386 26656  |
| .0774  | .8807 29374  | .4736 19859  | .2982 76853  | .6387 56476  |
| 1.0775 | 0.8807 76731 | 0.4735 31783 | 1.2984 40735 | 1.6388 86312 |
| .0776  | .8808 24080  | .4734 43703  | .2986 04630  | .6390 16164  |
| .0777  | .8808 71420  | .4733 55619  | .2987 68538  | .6391 46033  |
| .0778  | .8809 18751  | .4732 67529  | .2989 32459  | .6392 75918  |
| .0779  | .8809 66073  | .4731 79435  | .2990 96393  | .6394 05819  |
| 1.0780 | 0.8810 13387 | 0.4730 91336 | 1.2992 60341 | 1.6395 35737 |
| .0781  | .8810 60692  | .4730 03232  | .2994 24301  | .6396 65671  |
| .0782  | .8811 07988  | .4729 15124  | .2995 88274  | .6397 95622  |
| .0783  | .8811 55275  | .4728 27011  | .2997 52260  | .6399 25589  |
| .0784  | .8812 02553  | .4727 38893  | .2999 16259  | .6400 55572  |
| 1.0785 | 0.8812 49822 | 0.4726 50770 | 1.3000 80271 | 1.6401 85572 |
| .0786  | .8812 97083  | .4725 62643  | .3002 44296  | .6403 15588  |
| .0787  | .8813 44335  | .4724 74511  | .3004 08334  | .6404 45621  |
| .0788  | .8813 91578  | .4723 86374  | .3005 72385  | .6405 75670  |
| .0789  | .8814 38812  | .4722 98232  | .3007 36449  | .6407 05735  |
| 1.0790 | 0.8814 86038 | 0.4722 10086 | 1.3009 00526 | 1.6408 35817 |
| .0791  | .8815 33254  | .4721 21935  | .3010 64616  | .6409 65915  |
| .0792  | .8815 80462  | .4720 33780  | .3012 28719  | .6410 96030  |
| .0793  | .8816 27661  | .4719 45619  | .3013 92835  | .6412 26161  |
| .0794  | .8816 74851  | .4718 57454  | .3015 56965  | .6413 56309  |
| 1.0795 | 0.8817 22032 | 0.4717 69284 | 1.3017 21107 | 1.6414 86473 |
| .0796  | .8817 69205  | .4716 81110  | .3018 85262  | .6416 16653  |
| .0797  | .8818 16369  | .4715 92930  | .3020 49430  | .6417 46850  |
| .0798  | .8818 63524  | .4715 04746  | .3022 13611  | .6418 77063  |
| .0799  | .8819 10670  | .4714 16558  | .3023 77805  | .6420 07292  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.0800 | 0.8819 57807 | 0.4713 28364 | 1.3025 42013 | 1.6421 37538 |
| .0801  | .8820 04935  | .4712 40166  | .3027 06233  | .6422 67801  |
| .0802  | .8820 52055  | .4711 51963  | .3028 70466  | .6423 90800  |
| .0803  | .8820 99166  | .4710 63756  | .3030 34713  | .6425 28375  |
| .0804  | .8821 46268  | .4709 75543  | .3031 98972  | .6426 56687  |
| 1.0805 | 0.8821 93361 | 0.4708 87326 | 1.3033 63244 | 1.6427 89015 |
| .0806  | .8822 40445  | .4707 99105  | .3035 27530  | .6429 19359  |
| .0807  | .8822 87521  | .4707 10878  | .3036 91828  | .6430 49720  |
| .0808  | .8823 34587  | .4706 22647  | .3038 56140  | .6431 80098  |
| .0809  | .8823 81645  | .4705 34411  | .3040 20464  | .6433 10491  |
| 1.0810 | 0.8824 28694 | 0.4704 46171 | 1.3041 84802 | 1.6434 40902 |
| .0811  | .8824 75734  | .4703 57926  | .3043 49152  | .6435 71328  |
| .0812  | .8825 22766  | .4702 69676  | .3045 13516  | .6437 01771  |
| .0813  | .8825 69788  | .4701 81421  | .3046 77893  | .6438 32231  |
| .0814  | .8826 16802  | .4700 93162  | .3048 42283  | .6439 62707  |
| 1.0815 | 0.8826 63807 | 0.4700 04898 | 1.3050 06685 | 1.6440 93200 |
| .0816  | .8827 10803  | .4699 16629  | .3051 71101  | .6442 23708  |
| .0817  | .8827 57790  | .4698 28356  | .3053 35530  | .6443 54234  |
| .0818  | .8828 04769  | .4697 40077  | .3054 99972  | .6444 84776  |
| .0819  | .8828 51738  | .4696 51795  | .3056 64427  | .6446 15334  |
| 1.0820 | 0.8828 98699 | 0.4695 63507 | 1.3058 28895 | 1.6447 45908 |
| .0821  | .8829 45651  | .4694 75215  | .3059 93376  | .6448 76500  |
| .0822  | .8829 92594  | .4693 86918  | .3061 57870  | .6450 07107  |
| .0823  | .8830 39528  | .4692 98616  | .3063 22378  | .6451 37731  |
| .0824  | .8830 86454  | .4692 10310  | .3064 86898  | .6452 68372  |
| 1.0825 | 0.8831 33370 | 0.4691 21999 | 1.3066 51431 | 1.6453 99028 |
| .0826  | .8831 80278  | .4690 33683  | .3068 15978  | .6455 29702  |
| .0827  | .8832 27177  | .4689 45363  | .3069 80537  | .6456 60392  |
| .0828  | .8832 74067  | .4688 57038  | .3071 45110  | .6457 91098  |
| .0829  | .8833 20949  | .4687 68708  | .3073 09695  | .6459 21821  |
| 1.0830 | 0.8833 67821 | 0.4686 80374 | 1.3074 74294 | 1.6460 52560 |
| .0831  | .8834 14685  | .4685 92035  | .3076 38906  | .6461 83316  |
| .0832  | .8834 61539  | .4685 03691  | .3078 03531  | .6463 14088  |
| .0833  | .8835 08385  | .4684 15342  | .3079 68169  | .6464 44876  |
| .0834  | .8835 55223  | .4683 26989  | .3081 32820  | .6465 75681  |
| 1.0835 | 0.8836 02051 | 0.4682 38631 | 1.3082 97484 | 1.6467 06503 |
| .0836  | .8836 48870  | .4681 50269  | .3084 62161  | .6468 37341  |
| .0837  | .8836 95681  | .4680 61901  | .3086 26851  | .6469 68195  |
| .0838  | .8837 42483  | .4679 73530  | .3087 91555  | .6470 99066  |
| .0839  | .8837 89276  | .4678 85153  | .3089 56271  | .6472 29954  |
| 1.0840 | 0.8838 36060 | 0.4677 96772 | 1.3091 21001 | 1.6473 60857 |
| .0841  | .8838 82835  | .4677 08386  | .3092 85743  | .6474 91778  |
| .0842  | .8839 29601  | .4676 19995  | .3094 50499  | .6476 22715  |
| .0843  | .8839 76359  | .4675 31600  | .3096 15268  | .6477 53668  |
| .0844  | .8840 23108  | .4674 43200  | .3097 80050  | .6478 84638  |
| 1.0845 | 0.8840 69848 | 0.4673 54795 | 1.3099 44845 | 1.6480 15624 |
| .0846  | .8841 16579  | .4672 66386  | .3101 09653  | .6481 46627  |
| .0847  | .8841 63301  | .4671 77972  | .3102 74474  | .6482 77646  |
| .0848  | .8842 10014  | .4670 89553  | .3104 39308  | .6484 08681  |
| .0849  | .8842 56719  | .4670 01130  | .3106 04156  | .6485 39734  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.0850 | 0.8843 03414 | 0.4669 12702 | 1.3107 69016 | 1.6486 70802 |
| .0851  | .8843 50101  | .4668 24269  | .3109 33890  | .6488 01887  |
| .0852  | .8843 96779  | .4667 35832  | .3110 93777  | .6489 32989  |
| .0853  | .8844 43448  | .4666 47390  | .3112 63677  | .6490 64107  |
| .0854  | .8844 90109  | .4665 58943  | .3114 28590  | .6491 95242  |
| 1.0855 | 0.8845 36760 | 0.4664 70492 | 1.3115 93516 | 1.6493 26393 |
| .0856  | .8845 83403  | .4663 82036  | .3117 58455  | .6494 57561  |
| .0857  | .8846 30037  | .4662 93575  | .3119 23407  | .6495 88745  |
| .0858  | .8846 76662  | .4662 05110  | .3120 88373  | .6497 19945  |
| .0859  | .8847 23278  | .4661 16640  | .3122 53351  | .6498 51162  |
| 1.0860 | 0.8847 69885 | 0.4660 28165 | 1.3124 18343 | 1.6499 82396 |
| .0861  | .8848 16483  | .4659 39686  | .3125 83348  | .6501 13646  |
| .0862  | .8848 63073  | .4658 51202  | .3127 48366  | .6502 44913  |
| .0863  | .8849 09654  | .4657 62713  | .3129 13397  | .6503 76196  |
| .0864  | .8849 56225  | .4656 74220  | .3130 78441  | .6505 07495  |
| 1.0865 | 0.8850 02788 | 0.4655 85722 | 1.3132 43493 | 1.6506 38811 |
| .0866  | .8850 49343  | .4654 97219  | .3134 08569  | .6507 70144  |
| .0867  | .8850 95888  | .4654 08712  | .3135 73652  | .6509 01493  |
| .0868  | .8851 42424  | .4653 20200  | .3137 38749  | .6510 32859  |
| .0869  | .8851 88952  | .4652 31684  | .3139 03859  | .6511 64241  |
| 1.0870 | 0.8852 35471 | 0.4651 43162 | 1.3140 68982 | 1.6512 95639 |
| .0871  | .8852 81981  | .4650 54637  | .3142 34118  | .6514 27055  |
| .0872  | .8853 28482  | .4649 66106  | .3143 99267  | .6515 58486  |
| .0873  | .8853 74974  | .4648 77571  | .3145 64430  | .6516 89934  |
| .0874  | .8854 21457  | .4647 89031  | .3147 29605  | .6518 21399  |
| 1.0875 | 0.8854 67932 | 0.4647 00487 | 1.3148 94794 | 1.6519 52880 |
| .0876  | .8855 14397  | .4646 11937  | .3150 59996  | .6520 84378  |
| .0877  | .8855 60854  | .4645 23384  | .3152 25211  | .6522 15892  |
| .0878  | .8856 07302  | .4644 34825  | .3153 90439  | .6523 47423  |
| .0879  | .8856 53741  | .4643 46262  | .3155 55680  | .6524 78970  |
| 1.0880 | 0.8857 00171 | 0.4642 57695 | 1.3157 20935 | 1.6526 10534 |
| .0881  | .8857 46592  | .4641 69122  | .3158 86202  | .6527 42115  |
| .0882  | .8857 93005  | .4640 80545  | .3160 51483  | .6528 73712  |
| .0883  | .8858 39409  | .4639 91964  | .3162 16777  | .6530 05325  |
| .0884  | .8858 85803  | .4639 03377  | .3163 82084  | .6531 36955  |
| 1.0885 | 0.8859 32189 | 0.4638 14786 | 1.3165 47404 | 1.6532 68601 |
| .0886  | .8859 78566  | .4637 26191  | .3167 12738  | .6534 00264  |
| .0887  | .8860 24934  | .4636 37591  | .3168 78085  | .6535 31944  |
| .0888  | .8860 71294  | .4635 48986  | .3170 43444  | .6536 63640  |
| .0889  | .8861 17644  | .4634 60376  | .3172 08817  | .6537 95353  |
| 1.0890 | 0.8861 63986 | 0.4633 71762 | 1.3173 74203 | 1.6539 27082 |
| .0891  | .8862 10319  | .4632 83144  | .3175 39603  | .6540 58827  |
| .0892  | .8862 56642  | .4631 94520  | .3177 05015  | .6541 90590  |
| .0893  | .8863 02957  | .4631 05892  | .3178 70441  | .6543 22368  |
| .0894  | .8863 49264  | .4630 17260  | .3180 35880  | .6544 54164  |
| 1.0895 | 0.8863 95561 | 0.4629 28623 | 1.3182 01332 | 1.6545 85976 |
| .0896  | .8864 41849  | .4628 39981  | .3183 66797  | .6547 17804  |
| .0897  | .8864 88129  | .4627 51334  | .3185 32275  | .6548 49649  |
| .0898  | .8865 34400  | .4626 62683  | .3186 97767  | .6549 81510  |
| .0899  | .8865 80661  | .4625 74027  | .3188 63271  | .6551 13389  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.0900 | 0.8866 26914 | 0.4624 85367 | 1.3190 28789 | 1.6552 45283 |
| .0901  | .8866 73159  | .4623 96702  | .3191 94321  | .6553 77194  |
| .0902  | .8867 19394  | .4623 08032  | .3193 59865  | .6555 09122  |
| .0903  | .8867 65620  | .4622 19358  | .3195 25422  | .6556 41068  |
| .0904  | .8868 11838  | .4621 30679  | .3196 80993  | .6557 73027  |
| 1.0905 | 0.8868 58046 | 0.4620 41996 | 1.3198 56577 | 1.6559 05004 |
| .0906  | .8869 04246  | .4619 53308  | .3200 22174  | .6560 33998  |
| .0907  | .8869 50437  | .4618 64615  | .3201 87784  | .6561 69009  |
| .0908  | .8869 96619  | .4617 75917  | .3203 53408  | .6563 01036  |
| .0909  | .8870 42792  | .4616 87215  | .3205 19045  | .6564 33080  |
| 1.0910 | 0.8870 88956 | 0.4615 98509 | 1.3206 84695 | 1.6565 65140 |
| .0911  | .8871 35112  | .4615 09798  | .3208 50358  | .6566 97217  |
| .0912  | .8871 81258  | .4614 21082  | .3210 16034  | .6568 29310  |
| .0913  | .8872 27396  | .4613 32361  | .3211 81723  | .6569 61420  |
| .0914  | .8872 73525  | .4612 43636  | .3213 47426  | .6570 93545  |
| 1.0915 | 0.8873 19645 | 0.4611 54907 | 1.3215 13142 | 1.6572 25689 |
| .0916  | .8873 65756  | .4610 66172  | .3216 78871  | .6573 57549  |
| .0917  | .8874 11858  | .4609 77434  | .3218 44614  | .6574 89025  |
| .0918  | .8874 57951  | .4608 88690  | .3220 10369  | .6576 22218  |
| .0919  | .8875 04036  | .4607 99942  | .3221 76136  | .6577 54427  |
| 1.0920 | 0.8875 50111 | 0.4607 11189 | 1.3223 41920 | 1.6578 86653 |
| .0921  | .8875 96178  | .4606 22432  | .3225 07716  | .6580 18895  |
| .0922  | .8876 42236  | .4605 33670  | .3226 73524  | .6581 51155  |
| .0923  | .8876 88285  | .4604 44903  | .3228 39346  | .6582 83430  |
| .0924  | .8877 34325  | .4603 56132  | .3230 05181  | .6584 15722  |
| 1.0925 | 0.8877 80356 | 0.4602 67357 | 1.3231 71029 | 1.6585 48031 |
| .0926  | .8878 26378  | .4601 78576  | .3233 36890  | .6586 80357  |
| .0927  | .8878 72392  | .4600 89791  | .3235 02765  | .6588 12639  |
| .0928  | .8879 18396  | .4600 01002  | .3236 68653  | .6589 45057  |
| .0929  | .8879 64392  | .4599 12208  | .3238 34554  | .6590 77432  |
| 1.0930 | 0.8880 10379 | 0.4598 23409 | 1.3240 00468 | 1.6592 09824 |
| .0931  | .8880 56357  | .4597 34606  | .3241 66396  | .6593 42232  |
| .0932  | .8881 02326  | .4596 45798  | .3243 32337  | .6594 74657  |
| .0933  | .8881 48286  | .4595 56985  | .3244 98291  | .6596 07099  |
| .0934  | .8881 94237  | .4594 68168  | .3246 64258  | .6597 39557  |
| 1.0935 | 0.8882 40179 | 0.4593 79346 | 1.3248 30239 | 1.6598 72032 |
| .0936  | .8882 86113  | .4592 90520  | .3249 96233  | .6600 04523  |
| .0937  | .8883 32037  | .4592 01689  | .3251 62240  | .6601 37031  |
| .0938  | .8883 77953  | .4591 12854  | .3253 28260  | .6602 69555  |
| .0939  | .8884 23860  | .4590 24013  | .3254 94294  | .6604 02097  |
| 1.0940 | 0.8884 69758 | 0.4589 35169 | 1.3256 60340 | 1.6605 34654 |
| .0941  | .8885 15647  | .4588 46320  | .3258 26401  | .6606 67229  |
| .0942  | .8885 61527  | .4587 57466  | .3259 92474  | .6607 99820  |
| .0943  | .8886 07399  | .4586 68607  | .3261 58561  | .6609 32427  |
| .0944  | .8886 53261  | .4585 79744  | .3263 24660  | .6610 65051  |
| 1.0945 | 0.8886 99114 | 0.4584 90877 | 1.3264 90774 | 1.6611 97692 |
| .0946  | .8887 44959  | .4584 02004  | .3266 56900  | .6613 30349  |
| .0947  | .8887 90795  | .4583 13128  | .3268 23040  | .6614 63023  |
| .0948  | .8888 36622  | .4582 24246  | .3269 89193  | .6615 95714  |
| .0949  | .8888 82440  | .4581 35360  | .3271 55359  | .6617 28421  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.0950 | 0.8889 28249 | 0.4580 46470 | 1.3273 21538 | 1.6618 61145 |
| .0951  | .8889 74049  | .4579 57575  | .3274 87731  | .6619 93886  |
| .0952  | .8890 19840  | .4578 68675  | .3276 53937  | .6621 26643  |
| .0953  | .8890 65623  | .4577 79771  | .3278 20156  | .6622 59416  |
| .0954  | .8891 11396  | .4576 90862  | .3279 86389  | .6623 92207  |
| 1.0955 | 0.8891 57161 | 0.4576 01948 | 1.3281 52635 | 1.6625 25014 |
| .0956  | .8892 02917  | .4575 13030  | .3283 18894  | .6626 57837  |
| .0957  | .8892 48664  | .4574 24108  | .3284 85166  | .6627 90677  |
| .0958  | .8892 94402  | .4573 35181  | .3286 51452  | .6629 23534  |
| .0959  | .8893 40131  | .4572 46249  | .3288 17751  | .6630 56408  |
| 1.0960 | 0.8893 85851 | 0.4571 57313 | 1.3289 84063 | 1.6631 89298 |
| .0961  | .8894 31562  | .4570 68372  | .3291 50389  | .6633 22205  |
| .0962  | .8894 77264  | .4569 79426  | .3293 16728  | .6634 55128  |
| .0963  | .8895 22958  | .4568 90476  | .3294 83080  | .6635 88068  |
| .0964  | .8895 68643  | .4568 01522  | .3296 49445  | .6637 21025  |
| 1.0965 | 0.8896 14318 | 0.4567 12563 | 1.3298 15824 | 1.6638 53998 |
| .0966  | .8896 59985  | .4566 23599  | .3299 82216  | .6639 86988  |
| .0967  | .8897 05643  | .4565 34631  | .3301 48622  | .6641 19994  |
| .0968  | .8897 51292  | .4564 45658  | .3303 15040  | .6642 53017  |
| .0969  | .8897 96932  | .4563 56680  | .3304 81472  | .6643 86057  |
| 1.0970 | 0.8898 42563 | 0.4562 67698 | 1.3306 47917 | 1.6645 19114 |
| .0971  | .8898 88186  | .4561 78712  | .3308 14376  | .6646 52187  |
| .0972  | .8899 33799  | .4560 89721  | .3309 80848  | .6647 85277  |
| .0973  | .8899 79404  | .4560 00725  | .3311 47333  | .6649 18383  |
| .0974  | .8900 24999  | .4559 11725  | .3313 13831  | .6650 51506  |
| 1.0975 | 0.8900 70586 | 0.4558 22720 | 1.3314 80343 | 1.6651 84646 |
| .0976  | .8901 16164  | .4557 33711  | .3316 46868  | .6653 17802  |
| .0977  | .8901 61733  | .4556 44697  | .3318 13407  | .6654 50975  |
| .0978  | .8902 07293  | .4555 55678  | .3319 79959  | .6655 84165  |
| .0979  | .8902 52844  | .4554 66655  | .3321 46524  | .6657 17371  |
| 1.0980 | 0.8902 98386 | 0.4553 77628 | 1.3323 13102 | 1.6658 50594 |
| .0981  | .8903 43919  | .4552 88596  | .3324 79694  | .6659 83834  |
| .0982  | .8903 89444  | .4551 99559  | .3326 46299  | .6661 17090  |
| .0983  | .8904 34959  | .4551 10518  | .3328 12917  | .6662 50363  |
| .0984  | .8904 80466  | .4550 21472  | .3329 79549  | .6663 83653  |
| 1.0985 | 0.8905 25964 | 0.4549 32422 | 1.3331 46194 | 1.6665 16959 |
| .0986  | .8905 71452  | .4548 43367  | .3333 12852  | .6666 50282  |
| .0987  | .8906 16932  | .4547 54307  | .3334 79524  | .6667 83622  |
| .0988  | .8906 62403  | .4546 65243  | .3336 46209  | .6669 16978  |
| .0989  | .8907 07865  | .4545 76175  | .3338 12907  | .6670 50351  |
| 1.0990 | 0.8907 53318 | 0.4544 87102 | 1.3339 79619 | 1.6671 83740 |
| .0991  | .8907 98763  | .4543 98024  | .3341 46344  | .6673 17147  |
| .0992  | .8908 44198  | .4543 08942  | .3343 13083  | .6674 50570  |
| .0993  | .8908 89624  | .4542 19855  | .3344 79834  | .6675 84009  |
| .0994  | .8909 35042  | .4541 30764  | .3346 46599  | .6677 17466  |
| 1.0995 | 0.8909 80451 | 0.4540 41668 | 1.3348 13378 | 1.6678 50939 |
| .0996  | .8910 25850  | .4539 52568  | .3349 80170  | .6679 84428  |
| .0997  | .8910 71241  | .4538 63463  | .3351 46975  | .6681 17935  |
| .0998  | .8911 16623  | .4537 74354  | .3353 13793  | .6682 51458  |
| .0999  | .8911 61996  | .4536 85240  | .3354 80625  | .6683 84997  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 1.1000 | 0.8912 07360 | 0.4535 96121 | 1.3356 47470 | 1.6635 13554 |
| .1001  | .8912 52715  | .4535 06998  | .3358 14329  | .6636 52127  |
| .1002  | .8912 98061  | .4534 17871  | .3359 81201  | .6637 85717  |
| .1003  | .8913 43399  | .4533 28739  | .3361 48036  | .6639 19323  |
| .1004  | .8913 88727  | .4532 39602  | .3363 14934  | .6690 52946  |
| 1.1005 | 0.8914 34047 | 0.4531 50461 | 1.3364 91896 | 1.6691 36586 |
| .1006  | .8914 79357  | .4530 61315  | .3366 43822  | .6693 20243  |
| .1007  | .8915 24659  | .4529 72165  | .3368 15760  | .6694 53918  |
| .1008  | .8915 69952  | .4528 83010  | .3369 82713  | .6695 87606  |
| .1009  | .8916 15236  | .4527 93851  | .3371 49673  | .6697 21312  |
| 1.1010 | 0.8916 60511 | 0.4527 04687 | 1.3373 16657 | 1.6693 55036 |
| .1011  | .8917 05777  | .4526 15519  | .3374 83649  | .6699 38776  |
| .1012  | .8917 51034  | .4525 26346  | .3376 50655  | .6701 22533  |
| .1013  | .8917 96282  | .4524 37169  | .3373 17673  | .6702 56308  |
| .1014  | .8918 41521  | .4523 47987  | .3379 84706  | .6703 90096  |
| 1.1015 | 0.8918 86751 | 0.4522 58801 | 1.3381 51751 | 1.6705 23903 |
| .1016  | .8919 31973  | .4521 69610  | .3383 18211  | .6706 57726  |
| .1017  | .8919 77185  | .4520 80414  | .3384 85833  | .6707 91687  |
| .1018  | .8920 22389  | .4519 91214  | .3386 52969  | .6709 25424  |
| .1019  | .8920 67584  | .4519 02010  | .3388 20068  | .6710 59297  |
| 1.1020 | 0.8921 12769 | 0.4518 12801 | 1.3389 87181 | 1.6711 93183 |
| .1021  | .8921 57946  | .4517 23587  | .3391 54307  | .6713 27095  |
| .1022  | .8922 03114  | .4516 34369  | .3393 21446  | .6714 61018  |
| .1023  | .8922 48273  | .4515 45147  | .3394 88599  | .6715 94959  |
| .1024  | .8922 93423  | .4514 55919  | .3396 55765  | .6717 28916  |
| 1.1025 | 0.8923 38564 | 0.4513 66688 | 1.3396 22945 | 1.6713 62390 |
| .1026  | .8923 83696  | .4512 77452  | .3399 90138  | .6719 96891  |
| .1027  | .8924 28820  | .4511 88211  | .3401 57344  | .6721 30853  |
| .1028  | .8924 73934  | .4510 98966  | .3403 24564  | .6722 64912  |
| .1029  | .8925 19039  | .4510 09716  | .3404 91797  | .6723 98953  |
| 1.1030 | 0.8925 64136 | 0.4509 20462 | 1.3406 59044 | 1.6725 33011 |
| .1031  | .8926 09224  | .4508 31204  | .3408 26304  | .6726 67085  |
| .1032  | .8926 54302  | .4507 41940  | .3409 93577  | .6728 01176  |
| .1033  | .8926 99372  | .4506 52673  | .3411 60864  | .6729 35284  |
| .1034  | .8927 44433  | .4505 63400  | .3413 28164  | .6730 69408  |
| 1.1035 | 0.8927 89485 | 0.4504 74124 | 1.3414 95473 | 1.6732 03549 |
| .1036  | .8928 34528  | .4503 84843  | .3416 62805  | .6733 37707  |
| .1037  | .8928 79562  | .4502 95557  | .3418 30145  | .6734 71882  |
| .1038  | .8929 24587  | .4502 06267  | .3419 97499  | .6736 06073  |
| .1039  | .8929 69603  | .4501 16972  | .3421 64867  | .6737 40281  |
| 1.1040 | 0.8930 14610 | 0.4500 27673 | 1.3423 32247 | 1.6738 74506 |
| .1041  | .8930 59608  | .4499 38369  | .3424 99641  | .6740 08748  |
| .1042  | .8931 04598  | .4498 49061  | .3426 66949  | .6741 43006  |
| .1043  | .8931 49578  | .4497 59748  | .3428 34470  | .6742 77281  |
| .1044  | .8931 94550  | .4496 70431  | .3430 01905  | .6744 11573  |
| 1.1045 | 0.8932 39512 | 0.4495 81109 | 1.3431 69352 | 1.6745 45832 |
| .1046  | .8932 84466  | .4494 91783  | .3433 36814  | .6746 80207  |
| .1047  | .8933 29411  | .4494 02452  | .3435 04233  | .6748 14548  |
| .1048  | .8933 74346  | .4493 13117  | .3436 71777  | .6749 48808  |
| .1049  | .8934 19273  | .4492 23777  | .3438 39278  | .6750 83263  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.1050 | 0.8934 64191 | 0.4491 34433 | 1.3440 06793 | 1.6752 17676 |
| .1051  | .8935 09100  | .4490 45085  | .3441 74322  | .6753 52085  |
| .1052  | .8935 54000  | .4489 55731  | .3443 41864  | .6754 86510  |
| .1053  | .8935 98891  | .4488 66374  | .3445 09419  | .6756 20953  |
| .1054  | .8936 43773  | .4487 77012  | .3446 76988  | .6757 55412  |
| 1.1055 | 0.8936 88647 | 0.4486 87645 | 1.3448 44570 | 1.6758 89888 |
| .1056  | .8937 33511  | .4485 98274  | .3450 12166  | .6760 24381  |
| .1057  | .8937 78366  | .4485 08898  | .3451 79775  | .6761 58891  |
| .1058  | .8938 23213  | .4484 19518  | .3453 47398  | .6762 93417  |
| .1059  | .8938 68050  | .4483 30134  | .3455 15034  | .6764 27960  |
| 1.1060 | 0.8939 12879 | 0.4482 40745 | 1.3456 82683 | 1.6765 62520 |
| .1061  | .8939 57698  | .4481 51351  | .3458 50346  | .6766 97097  |
| .1062  | .8940 02509  | .4480 61953  | .3460 18023  | .6768 31690  |
| .1063  | .8940 47311  | .4479 72551  | .3461 85713  | .6769 66300  |
| .1064  | .8940 92104  | .4478 83144  | .3463 53416  | .6771 00927  |
| 1.1065 | 0.8941 36887 | 0.4477 93732 | 1.3465 21133 | 1.6772 35571 |
| .1066  | .8941 81662  | .4477 04316  | .3466 88863  | .6773 70232  |
| .1067  | .8942 26428  | .4476 14896  | .3468 56607  | .6775 04909  |
| .1068  | .8942 71185  | .4475 25471  | .3470 24364  | .6776 39603  |
| .1069  | .8943 15933  | .4474 36042  | .3471 92135  | .6777 74314  |
| 1.1070 | 0.8943 60672 | 0.4473 46608 | 1.3473 59919 | 1.6779 09041 |
| .1071  | .8944 05403  | .4472 57169  | .3475 27717  | .6780 43786  |
| .1072  | .8944 50124  | .4471 67727  | .3476 95528  | .6781 78547  |
| .1073  | .8944 94836  | .4470 78279  | .3478 63352  | .6783 13325  |
| .1074  | .8945 39540  | .4469 88828  | .3480 31190  | .6784 48120  |
| 1.1075 | 0.8945 84234 | 0.4468 99372 | 1.3481 99042 | 1.6785 82931 |
| .1076  | .8946 28919  | .4468 09911  | .3483 66907  | .6787 17759  |
| .1077  | .8946 73596  | .4467 20446  | .3485 34785  | .6788 52604  |
| .1078  | .8947 18264  | .4466 30976  | .3487 02677  | .6789 87466  |
| .1079  | .8947 62922  | .4465 41502  | .3488 70583  | .6791 22345  |
| 1.1080 | 0.8948 07572 | 0.4464 52024 | 1.3490 38502 | 1.6792 57240 |
| .1081  | .8948 52213  | .4463 62541  | .3492 06434  | .6793 92153  |
| .1082  | .8948 96844  | .4462 73053  | .3493 74380  | .6795 27082  |
| .1083  | .8949 41467  | .4461 83561  | .3495 42340  | .6796 62028  |
| .1084  | .8949 86081  | .4460 94065  | .3497 10313  | .6797 96990  |
| 1.1085 | 0.8950 30686 | 0.4460 04564 | 1.3498 78299 | 1.6799 31970 |
| .1086  | .8950 75282  | .4459 15059  | .3500 46299  | .6800 66966  |
| .1087  | .8951 19869  | .4458 25549  | .3502 14313  | .6802 01979  |
| .1088  | .8951 64447  | .4457 36035  | .3503 82340  | .6803 37009  |
| .1089  | .8952 09016  | .4456 46516  | .3505 50380  | .6804 72055  |
| 1.1090 | 0.8952 53576 | 0.4455 56993 | 1.3507 18434 | 1.6806 07119 |
| .1091  | .8952 98128  | .4454 67465  | .3508 86501  | .6807 42199  |
| .1092  | .8953 42670  | .4453 77933  | .3510 54582  | .6808 77296  |
| .1093  | .8953 87203  | .4452 88397  | .3512 22677  | .6810 12410  |
| .1094  | .8954 31728  | .4451 98856  | .3513 90785  | .6811 47541  |
| 1.1095 | 0.8954 76243 | 0.4451 09310 | 1.3515 58906 | 1.6812 82688 |
| .1096  | .8955 20749  | .4450 19761  | .3517 27041  | .6814 17852  |
| .1097  | .8955 65247  | .4449 30206  | .3518 95190  | .6815 53034  |
| .1098  | .8956 09735  | .4448 40648  | .3520 63352  | .6816 88231  |
| .1099  | .8956 54215  | .4447 51084  | .3522 31528  | .6818 23446  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.1100 | 0.8956 98686 | 0.4446 61517 | 1.3523 99717 | 1.6819 58678 |
| .1101  | .8957 43147  | .4445 71945  | .3525 87919  | .6820 93926  |
| .1102  | .8957 87600  | .4444 82368  | .3527 36135  | .6822 29191  |
| .1103  | .8958 32044  | .4443 92787  | .3529 04365  | .6823 64473  |
| .1104  | .8958 76479  | .4443 03202  | .3530 72608  | .6824 99772  |
| 1.1105 | 0.8959 20904 | 0.4442 13612 | 1.3532 40865 | 1.6825 35088 |
| .1106  | .8959 65321  | .4441 24018  | .3534 09135  | .6827 70420  |
| .1107  | .8960 09729  | .4440 34419  | .3535 77419  | .6829 05770  |
| .1108  | .8960 54128  | .4439 44816  | .3537 45717  | .6830 41136  |
| .1109  | .8960 98518  | .4438 55208  | .3539 14027  | .6831 76519  |
| 1.1110 | 0.8961 42899 | 0.4437 65596 | 1.3540 82352 | 1.6833 11919 |
| .1111  | .8961 87271  | .4436 75979  | .3542 50690  | .6834 47335  |
| .1112  | .8962 31634  | .4435 86358  | .3544 19041  | .6835 82769  |
| .1113  | .8962 75989  | .4434 96733  | .3545 87408  | .6837 18219  |
| .1114  | .8963 20334  | .4434 07103  | .3547 55785  | .6838 53686  |
| 1.1115 | 0.8963 64670 | 0.4433 17469 | .3549 24177  | .6839 89170  |
| .1116  | .8964 08997  | .4432 27830  | .3550 92563  | .6841 24671  |
| .1117  | .8964 53316  | .4431 38187  | .3552 61002  | .6842 60139  |
| .1118  | .8964 97625  | .4430 48540  | .3554 29435  | .6843 95723  |
| .1119  | .8965 41925  | .4429 58888  | .3555 97881  | .6845 31275  |
| 1.1120 | 0.8965 86217 | 0.4428 69231 | 1.3557 66341 | 1.6846 66843 |
| .1121  | .8966 30499  | .4427 79570  | .3559 34815  | .6848 02428  |
| .1122  | .8966 74773  | .4426 89905  | .3561 03302  | .6849 38030  |
| .1123  | .8967 19037  | .4426 00235  | .3562 71802  | .6850 73649  |
| .1124  | .8967 63293  | .4425 10561  | .3564 40316  | .6852 09284  |
| 1.1125 | 0.8968 07539 | 0.4424 20883 | 1.3566 08844 | 1.6853 44937 |
| .1126  | .8968 51777  | .4423 31200  | .3567 77385  | .6854 80606  |
| .1127  | .8968 96005  | .4422 41512  | .3569 45940  | .6856 16292  |
| .1128  | .8969 40225  | .4421 51821  | .3571 14509  | .6857 51995  |
| .1129  | .8969 84436  | .4420 62124  | .3572 83091  | .6858 87715  |
| 1.1130 | 0.8970 28638 | 0.4419 72424 | 1.3574 51636 | 1.6860 23452 |
| .1131  | .8970 72830  | .4418 82719  | .3576 20295  | .6861 59205  |
| .1132  | .8971 17014  | .4417 93009  | .3577 88918  | .6862 94976  |
| .1133  | .8971 61189  | .4417 03295  | .3579 57554  | .6864 30763  |
| .1134  | .8972 05355  | .4416 13577  | .3581 26204  | .6865 66567  |
| 1.1135 | 0.8972 49512 | 0.4415 23854 | 1.3582 94868 | 1.6867 02388 |
| .1136  | .8972 93660  | .4414 34127  | .3584 63545  | .6868 38226  |
| .1137  | .8973 37798  | .4413 44395  | .3586 32235  | .6869 74081  |
| .1138  | .8973 81928  | .4412 54659  | .3588 00939  | .6871 09953  |
| .1139  | .8974 26049  | .4411 64919  | .3589 69657  | .6872 45841  |
| 1.1140 | 0.8974 70161 | 0.4410 75174 | 1.3591 38389 | 1.6873 81747 |
| .1141  | .8975 14264  | .4409 85425  | .3593 07134  | .6875 17669  |
| .1142  | .8975 58359  | .4408 95671  | .3594 75892  | .6876 53608  |
| .1143  | .8976 02444  | .4408 05913  | .3596 44654  | .6877 89564  |
| .1144  | .8976 46520  | .4407 16151  | .3598 13450  | .6879 25537  |
| 1.1145 | 0.8976 90587 | 0.4406 26384 | 1.3599 82249 | 1.6880 61527 |
| .1146  | .8977 34645  | .4405 36613  | .3601 51062  | .6881 97534  |
| .1147  | .8977 78694  | .4404 46837  | .3603 19889  | .6883 33557  |
| .1148  | .8978 22734  | .4403 57057  | .3604 88729  | .6884 69598  |
| .1149  | .8978 66766  | .4402 67273  | .3606 57583  | .6886 05655  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.1150 | 0.8979 10738 | 0.4401 77484 | 1.3608 26450 | 1.6887 41729 |
| .1151  | .8979 54801  | .4400 87690  | .3609 95331  | .6888 77820  |
| .1152  | .8979 98805  | .4399 97893  | .3611 64226  | .6890 13928  |
| .1153  | .8980 42801  | .4399 08091  | .3613 33134  | .6891 50053  |
| .1154  | .8980 86787  | .4398 18284  | .3615 02056  | .6892 86195  |
| 1.1155 | 0.8981 30764 | 0.4397 28473 | 1.3616 70991 | 1.6894 22353 |
| .1156  | .8981 74733  | .4396 38658  | .3618 39940  | .6895 58529  |
| .1157  | .8982 18692  | .4395 48838  | .3620 08903  | .6896 94721  |
| .1158  | .8982 62642  | .4394 59014  | .3621 77879  | .6898 30931  |
| .1159  | .8983 06584  | .4393 69186  | .3623 46869  | .6899 67157  |
| 1.1160 | 0.8983 50516 | 0.4392 79353 | 1.3625 15873 | 1.6901 03400 |
| .1161  | .8983 94440  | .4391 89516  | .3626 84890  | .6902 39660  |
| .1162  | .8984 38354  | .4390 99674  | .3628 53920  | .6903 75937  |
| .1163  | .8984 82260  | .4390 09828  | .3630 22965  | .6905 12231  |
| .1164  | .8985 26156  | .4389 19978  | .3631 92023  | .6906 48542  |
| 1.1165 | 0.8985 70044 | 0.4388 30123 | 1.3633 61095 | 1.6907 84869 |
| .1166  | .8986 13922  | .4387 40264  | .3635 30180  | .6909 21214  |
| .1167  | .8986 57792  | .4386 50400  | .3636 99279  | .6910 57575  |
| .1168  | .8987 01652  | .4385 60532  | .3638 68391  | .6911 93954  |
| .1169  | .8987 45504  | .4384 70660  | .3640 37518  | .6913 30349  |
| 1.1170 | 0.8987 89346 | 0.4383 80783 | 1.3642 06658 | 1.6914 66761 |
| .1171  | .8988 33180  | .4382 90902  | .3643 75811  | .6916 03190  |
| .1172  | .8988 77005  | .4382 01016  | .3645 44978  | .6917 39636  |
| .1173  | .8989 20820  | .4381 11126  | .3647 14159  | .6918 76099  |
| .1174  | .8989 64627  | .4380 21232  | .3648 83353  | .6920 12579  |
| 1.1175 | 0.8990 08424 | 0.4379 31334 | 1.3650 52561 | 1.6921 49076 |
| .1176  | .8990 52213  | .4378 41430  | .3652 21783  | .6922 85590  |
| .1177  | .8990 95993  | .4377 51523  | .3653 91019  | .6924 22120  |
| .1178  | .8991 39763  | .4376 61611  | .3655 60268  | .6925 58668  |
| .1179  | .8991 83525  | .4375 71695  | .3657 29530  | .6926 95232  |
| 1.1180 | 0.8992 27278 | 0.4374 81775 | 1.3658 98807 | 1.6928 31814 |
| .1181  | .8992 71021  | .4373 91850  | .3660 68097  | .6929 68412  |
| .1182  | .8993 14756  | .4373 01920  | .3662 37400  | .6931 05027  |
| .1183  | .8993 58482  | .4372 11987  | .3664 06718  | .6932 41660  |
| .1184  | .8994 02198  | .4371 22049  | .3665 76049  | .6933 78309  |
| 1.1185 | 0.8994 45906 | 0.4370 32106 | 1.3667 45393 | 1.6935 14975 |
| .1186  | .8994 89605  | .4369 42160  | .3669 14752  | .6936 51658  |
| .1187  | .8995 33295  | .4368 52208  | .3670 84124  | .6937 88358  |
| .1188  | .8995 76975  | .4367 62253  | .3672 53509  | .6939 25075  |
| .1189  | .8996 20647  | .4366 72293  | .3674 22909  | .6940 61809  |
| 1.1190 | 0.8996 64310 | 0.4365 82329 | 1.3675 92322 | 1.6941 98559 |
| .1191  | .8997 07963  | .4364 92360  | .3677 61748  | .6943 35327  |
| .1192  | .8997 51608  | .4364 02387  | .3679 31189  | .6944 72112  |
| .1193  | .8997 95244  | .4363 12410  | .3681 00643  | .6946 08913  |
| .1194  | .8998 38871  | .4362 22428  | .3682 70111  | .6947 45732  |
| 1.1195 | 0.8998 82488 | 0.4361 32442 | 1.3684 39592 | 1.6948 82567 |
| .1196  | .8999 26097  | .4360 42452  | .3686 09087  | .6950 19420  |
| .1197  | .8999 69697  | .4359 52457  | .3687 78596  | .6951 56289  |
| .1198  | .9000 13288  | .4358 62458  | .3689 48118  | .6952 93175  |
| .1199  | .9000 56869  | .4357 72454  | .3691 17654  | .6954 30079  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.1200 | 0.9001 00442 | 0.4356 82446 | 1.3692 87204 | 1.6955 66999 |
| .1201  | .9001 44006  | .4355 32434  | .8694 56762  | .6957 03936  |
| .1202  | .9001 37561  | .4355 02417  | .3696 26345  | .6953 40890  |
| .1203  | .9002 31106  | .4354 12397  | .3697 95936  | .6959 77861  |
| .1204  | .9002 74643  | .4353 22371  | .3699 65541  | .6961 14849  |
| 1.1205 | 0.9003 18171 | 0.4352 32342 | 1.3701 35159 | 1.6962 51355 |
| .1206  | .9003 61690  | .4351 42308  | .3703 04791  | .6963 88877  |
| .1207  | .9004 05199  | .4350 52289  | .3704 74437  | .6965 25915  |
| .1208  | .9004 48700  | .4349 62227  | .3705 44096  | .6966 62971  |
| .1209  | .9004 92192  | .4348 72180  | .3706 13789  | .6968 00044  |
| 1.1210 | 0.9005 35674 | 0.4347 82128 | 1.3709 83456 | 1.6969 37134 |
| .1211  | .9005 79148  | .4346 92072  | .3711 53157  | .6970 74241  |
| .1212  | .9006 22613  | .4346 02012  | .3713 22871  | .6972 11365  |
| .1213  | .9006 66069  | .4345 11948  | .3714 92599  | .6973 48506  |
| .1214  | .9007 09515  | .4344 21879  | .3716 62341  | .6974 85663  |
| 1.1215 | 0.9007 52953 | 0.4343 31806 | 1.3718 32096 | 1.6976 22838 |
| .1216  | .9007 96382  | .4342 41729  | .3720 01865  | .6977 60030  |
| .1217  | .9008 39801  | .4341 51647  | .3721 71643  | .6979 97238  |
| .1218  | .9008 83212  | .4340 61561  | .3723 41445  | .6980 34464  |
| .1219  | .9009 26614  | .4339 71470  | .3725 11255  | .6981 71707  |
| 1.1220 | 0.9009 70006 | 0.4338 81375 | 1.3726 81079 | 1.6983 08966 |
| .1221  | .9010 13390  | .4337 91276  | .3728 50917  | .6984 46243  |
| .1222  | .9010 56765  | .4337 01173  | .3730 20768  | .6985 83537  |
| .1223  | .9011 00130  | .4336 11065  | .3731 90634  | .6987 20847  |
| .1224  | .9011 43487  | .4335 20953  | .3733 60513  | .6988 58175  |
| 1.1225 | 0.9011 86834 | 0.4334 30835 | 1.3735 30405 | 1.6989 95519 |
| .1226  | .9012 30173  | .4333 40715  | .3737 00312  | .6991 32831  |
| .1227  | .9012 73502  | .4332 50590  | .3738 70232  | .6992 70258  |
| .1228  | .9013 16823  | .4331 60460  | .3740 40166  | .6994 07655  |
| .1229  | .9013 60135  | .4330 70327  | .3742 10113  | .6995 45087  |
| 1.1230 | 0.9014 03437 | 0.4329 80186 | 1.3743 80075 | 1.6996 82497 |
| .1231  | .9014 46731  | .4328 90046  | .3745 50050  | .6998 19943  |
| .1232  | .9014 90015  | .4327 99899  | .3747 20039  | .6999 57407  |
| .1233  | .9015 33291  | .4327 09748  | .3748 90041  | .7000 94887  |
| .1234  | .9015 76557  | .4326 19592  | .3750 60058  | .7002 32385  |
| 1.1235 | 0.9016 19815 | 0.4325 29433 | 1.3752 30088 | 1.7003 69899 |
| .1236  | .9016 63063  | .4324 39268  | .3754 00132  | .7005 07431  |
| .1237  | .9017 06302  | .4323 49100  | .3755 70189  | .7006 44979  |
| .1238  | .9017 49533  | .4322 58927  | .3757 40261  | .7007 82545  |
| .1239  | .9017 92754  | .4321 68750  | .3759 10346  | .7009 20127  |
| 1.1240 | 0.9018 35967 | 0.4320 78569 | 1.3760 80445 | 1.7010 57727 |
| .1241  | .9018 79170  | .4319 88383  | .3762 50557  | .7011 95343  |
| .1242  | .9019 22364  | .4318 98193  | .3764 20684  | .7013 32977  |
| .1243  | .9019 65550  | .4318 07998  | .3765 90824  | .7014 70628  |
| .1244  | .9020 08726  | .4317 17800  | .3767 60976  | .7016 08295  |
| 1.1245 | 0.9020 51893 | 0.4316 27597 | 1.3769 31146 | 1.7017 45960 |
| .1246  | .9020 95051  | .4315 37389  | .3771 01327  | .7018 83681  |
| .1247  | .9021 38201  | .4314 47178  | .3772 71522  | .7020 21400  |
| .1248  | .9021 81341  | .4313 56962  | .3774 41731  | .7021 59136  |
| .1249  | .9022 24472  | .4312 66741  | .3776 11964  | .7022 96888  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.1250 | 0.9022 67594 | 0.4311 76517 | 1.3777 82191 | 1.7024 34658 |
| .1251  | .9023 10707  | .4310 86288  | .3779 52441  | .7025 72445  |
| .1252  | .9023 55811  | .4309 96055  | .3781 22705  | .7027 10249  |
| .1253  | .9023 96906  | .4309 05817  | .3782 92933  | .7028 48069  |
| .1254  | .9024 39993  | .4308 15575  | .3784 63275  | .7029 85907  |
| 1.1255 | 0.9024 83070 | 0.4307 25329 | 1.3786 33580 | 1.7031 23762 |
| .1256  | .9025 26138  | .4306 35079  | .3788 03900  | .7032 61634  |
| .1257  | .9025 69197  | .4305 44824  | .3789 74233  | .7033 99523  |
| .1258  | .9026 12247  | .4304 54565  | .3791 44530  | .7035 37429  |
| .1259  | .9026 55287  | .4303 64301  | .3793 14940  | .7036 75352  |
| 1.1260 | 0.9026 98319 | 0.4302 74034 | 1.3794 35315 | 1.7038 13292 |
| .1261  | .9027 41342  | .4301 83762  | .3796 55703  | .7039 51249  |
| .1262  | .9027 84356  | .4300 93485  | .3798 26105  | .7040 89223  |
| .1263  | .9028 27361  | .4300 03205  | .3799 96521  | .7042 27214  |
| .1264  | .9028 70357  | .4299 12920  | .3801 66950  | .7043 65222  |
| 1.1265 | 0.9029 13344 | 0.4298 22631 | 1.3803 37394 | 1.7045 03247 |
| .1266  | .9029 56321  | .4297 32337  | .3805 07851  | .7046 41290  |
| .1267  | .9029 99290  | .4296 42040  | .3806 78322  | .7047 79349  |
| .1268  | .9030 42250  | .4295 51738  | .3808 48807  | .7049 17425  |
| .1269  | .9030 85200  | .4294 61431  | .3810 19305  | .7050 55519  |
| 1.1270 | 0.9031 28142 | 0.4293 71120 | 1.3811 89818 | 1.7051 93629 |
| .1271  | .9031 71075  | .4292 80805  | .3813 60344  | .7053 31757  |
| .1272  | .9032 13998  | .4291 90486  | .3815 30884  | .7054 69901  |
| .1273  | .9032 56913  | .4291 00163  | .3817 01438  | .7056 08063  |
| .1274  | .9032 99818  | .4290 09835  | .3818 72006  | .7057 46242  |
| 1.1275 | 0.9033 42715 | 0.4289 19503 | 1.3820 42587 | 1.7058 84437 |
| .1276  | .9033 85602  | .4288 29166  | .3822 13183  | .7060 22650  |
| .1277  | .9034 28481  | .4287 38826  | .3823 83792  | .7061 60880  |
| .1278  | .9034 71350  | .4286 48481  | .3825 54415  | .7062 99127  |
| .1279  | .9035 14210  | .4285 58131  | .3827 25052  | .7064 37391  |
| 1.1280 | 0.9035 57062 | 0.4284 67778 | 1.3828 95702 | 1.7065 75672 |
| .1281  | .9035 99904  | .4283 77420  | .3830 66367  | .7067 13970  |
| .1282  | .9036 42737  | .4282 87058  | .3832 37045  | .7068 52285  |
| .1283  | .9036 85561  | .4281 96691  | .3834 07737  | .7069 90617  |
| .1284  | .9037 28376  | .4281 06321  | .3835 78443  | .7071 28967  |
| 1.1285 | 0.9037 71182 | 0.4280 15946 | 1.3837 49163 | 1.7072 67333 |
| .1286  | .9038 13980  | .4279 25566  | .3839 19897  | .7074 05717  |
| .1287  | .9038 56768  | .4278 35183  | .3840 90644  | .7075 44117  |
| .1288  | .9038 99547  | .4277 44795  | .3842 61406  | .7076 82535  |
| .1289  | .9039 42317  | .4276 54403  | .3844 32181  | .7078 20969  |
| 1.1290 | 0.9039 85077 | 0.4275 64007 | 1.3846 02970 | 1.7079 59421 |
| .1291  | .9040 27829  | .4274 73606  | .3847 73773  | .7080 97890  |
| .1292  | .9040 70572  | .4273 83201  | .3849 44589  | .7082 36376  |
| .1293  | .9041 13306  | .4272 92792  | .3851 15420  | .7083 74879  |
| .1294  | .9041 56031  | .4272 02378  | .3852 86264  | .7085 13399  |
| 1.1295 | 0.9041 98746 | 0.4271 11961 | 1.3854 57123 | 1.7086 51936 |
| .1296  | .9042 41453  | .4270 21539  | .3856 27995  | .7087 90490  |
| .1297  | .9042 84151  | .4269 31112  | .3857 98881  | .7089 29062  |
| .1298  | .9043 26839  | .4268 40682  | .3859 69781  | .7090 67650  |
| .1299  | .9043 69519  | .4267 50247  | .3861 40694  | .7092 06256  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.1300 | 0.9044 12189 | 0.4266 59808 | 1.3863 11622 | 1.7093 44978 |
| .1301  | .9044 54851  | .4265 69365  | .3864 32563  | .7094 83518  |
| .1302  | .9044 97503  | .4264 78917  | .3865 53519  | .7096 22175  |
| .1303  | .9045 40147  | .4263 88465  | .3866 24488  | .7097 60849  |
| .1304  | .9045 82781  | .4262 98009  | .3869 35471  | .7099 99540  |
| 1.1305 | 0.9046 25406 | 0.4262 07549 | 1.3871 56466 | 1.7100 38243 |
| .1306  | .9046 68022  | .4261 17034  | .3873 37478  | .7101 76973  |
| .1307  | .9047 10630  | .4260 26615  | .3875 08503  | .7103 15715  |
| .1308  | .9047 53228  | .4259 36142  | .3876 79542  | .7104 54475  |
| .1309  | .9047 95817  | .4258 45664  | .3878 50594  | .7106 93251  |
| 1.1310 | 0.9048 38397 | 0.4257 55183 | 1.3880 21660 | 1.7107 32045 |
| .1311  | .9048 80968  | .4256 64697  | .3881 92740  | .7108 70856  |
| .1312  | .9049 23530  | .4255 74206  | .3883 63834  | .7110 09633  |
| .1313  | .9049 66083  | .4254 83712  | .3885 34942  | .7111 48528  |
| .1314  | .9050 08627  | .4253 93213  | .3887 06064  | .7112 87390  |
| 1.1315 | 0.9050 51161 | 0.4253 02710 | 1.3888 77200 | 1.7114 26269 |
| .1316  | .9050 93687  | .4252 12203  | .3890 48349  | .7115 65166  |
| .1317  | .9051 36204  | .4251 21691  | .3892 19513  | .7117 04073  |
| .1318  | .9051 78711  | .4250 31176  | .3893 90690  | .7118 43010  |
| .1319  | .9052 21210  | .4249 40656  | .3895 61681  | .7119 81957  |
| 1.1320 | 0.9052 63700 | 0.4248 50131 | 1.3897 33087 | 1.7121 20922 |
| .1321  | .9053 06180  | .4247 59603  | .3899 04306  | .7122 59904  |
| .1322  | .9053 48652  | .4246 69070  | .3900 75538  | .7123 98903  |
| .1323  | .9053 91114  | .4245 78533  | .3902 46785  | .7125 37919  |
| .1324  | .9054 33567  | .4244 87992  | .3904 18043  | .7126 76952  |
| 1.1325 | 0.9054 76012 | 0.4243 97447 | 1.3905 89321 | 1.7128 16003 |
| .1326  | .9055 18447  | .4243 06897  | .3907 60609  | .7129 55070  |
| .1327  | .9055 60873  | .4242 16343  | .3909 31912  | .7130 94155  |
| .1328  | .9056 03290  | .4241 25785  | .3911 03228  | .7132 33257  |
| .1329  | .9056 45698  | .4240 35222  | .3912 74558  | .7133 72375  |
| 1.1330 | 0.9056 88097 | 0.4239 44655 | 1.3914 45903 | 1.7135 11511 |
| .1331  | .9057 30487  | .4238 54085  | .3916 17261  | .7136 50665  |
| .1332  | .9057 72868  | .4237 63509  | .3917 88633  | .7137 89835  |
| .1333  | .9058 15240  | .4236 72930  | .3919 60019  | .7139 29022  |
| .1334  | .9058 57602  | .4235 82346  | .3921 31419  | .7140 68227  |
| 1.1335 | 0.9058 99956 | 0.4234 91758 | 1.3923 02832 | 1.7142 07449 |
| .1336  | .9059 42301  | .4234 01166  | .3924 74260  | .7143 46687  |
| .1337  | .9059 84636  | .4233 10570  | .3926 45702  | .7144 85943  |
| .1338  | .9060 26963  | .4232 19969  | .3928 17157  | .7146 25217  |
| .1339  | .9060 69280  | .4231 29365  | .3929 88627  | .7147 64507  |
| 1.1340 | 0.9061 11589 | 0.4230 38756 | 1.3931 60110 | 1.7149 03814 |
| .1341  | .9061 53888  | .4229 48142  | .3933 31607  | .7150 43139  |
| .1342  | .9061 96178  | .4228 57525  | .3935 03119  | .7151 82481  |
| .1343  | .9062 38460  | .4227 66903  | .3936 74644  | .7153 21840  |
| .1344  | .9062 80732  | .4226 76277  | .3938 46183  | .7154 61213  |
| 1.1345 | 0.9063 22995 | 0.4225 85647 | 1.3940 17736 | 1.7156 00609 |
| .1346  | .9063 65249  | .4224 95012  | .3941 89303  | .7157 40019  |
| .1347  | .9064 07494  | .4224 04374  | .3943 60834  | .7159 79447  |
| .1348  | .9064 49730  | .4223 13731  | .3945 32479  | .7160 18881  |
| .1349  | .9064 91957  | .4222 23084  | .3947 04028  | .7161 58353  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.1350 | 0.9065 34174 | 0.4221 32433 | 1.3948 75711 | 1.7162 97832 |
| .1351  | .9065 76383  | .4220 41777  | .3950 47348  | .7164 37328  |
| .1352  | .9066 18583  | .4219 51117  | .3952 18998  | .7165 76842  |
| .1353  | .9066 60773  | .4218 60453  | .3953 90663  | .7167 16372  |
| .1354  | .9067 02955  | .4217 69785  | .3955 62342  | .7168 55920  |
| 1.1355 | 0.9067 45127 | 0.4216 79113 | 1.3957 34034 | 1.7169 95485 |
| .1356  | .9067 87291  | .4215 88436  | .3959 05741  | .7171 35067  |
| .1357  | .9068 29445  | .4214 97755  | .3960 77461  | .7172 74666  |
| .1358  | .9068 71590  | .4214 07070  | .3962 49196  | .7174 14282  |
| .1359  | .9069 13726  | .4213 16381  | .3964 20944  | .7175 53916  |
| 1.1360 | 0.9069 55853 | 0.4212 25687 | 1.3965 92706 | 1.7176 93566 |
| .1361  | .9069 97972  | .4211 34990  | .3967 64483  | .7178 33234  |
| .1362  | .9070 40080  | .4210 44288  | .3969 36273  | .7179 72919  |
| .1363  | .9070 82180  | .4209 53582  | .3971 08077  | .7181 12621  |
| .1364  | .9071 24271  | .4208 62871  | .3972 79896  | .7182 52341  |
| 1.1365 | 0.9071 66353 | 0.4207 72157 | 1.3974 51728 | 1.7183 92077 |
| .1366  | .9072 08426  | .4206 81438  | .3976 23574  | .7185 31831  |
| .1367  | .9072 50489  | .4205 90715  | .3977 95434  | .7186 71602  |
| .1368  | .9072 92544  | .4204 99988  | .3979 67308  | .7188 11390  |
| .1369  | .9073 34589  | .4204 09257  | .3981 39196  | .7189 51195  |
| 1.1370 | 0.9073 76626 | 0.4203 18521 | 1.3983 11098 | 1.7190 91018 |
| .1371  | .9074 18653  | .4202 27781  | .3984 83015  | .7192 30858  |
| .1372  | .9074 60671  | .4201 37037  | .3986 54945  | .7193 70715  |
| .1373  | .9075 02680  | .4200 46289  | .3988 26889  | .7195 10589  |
| .1374  | .9075 44680  | .4199 55537  | .3989 98847  | .7196 50480  |
| 1.1375 | 0.9075 86671 | 0.4198 64780 | 1.3991 70819 | 1.7197 90388 |
| .1376  | .9076 28653  | .4197 74020  | .3993 42805  | .7199 30314  |
| .1377  | .9076 70626  | .4196 83255  | .3995 14805  | .7200 70257  |
| .1378  | .9077 12590  | .4195 92485  | .3996 86819  | .7202 10217  |
| .1379  | .9077 54545  | .4195 01712  | .3998 58847  | .7203 50194  |
| 1.1380 | 0.9077 96490 | 0.4194 10935 | 1.4000 30889 | 1.7204 90189 |
| .1381  | .9078 38427  | .4193 20153  | .4002 02945  | .7206 30201  |
| .1382  | .9078 80354  | .4192 29367  | .4003 75015  | .7207 70229  |
| .1383  | .9079 22273  | .4191 38577  | .4005 47099  | .7209 10276  |
| .1384  | .9079 64182  | .4190 47782  | .4007 19197  | .7210 50339  |
| 1.1385 | 0.9080 06082 | 0.4189 56984 | 1.4008 91309 | 1.7211 90419 |
| .1386  | .9080 47974  | .4188 66181  | .4010 63435  | .7213 30517  |
| .1387  | .9080 89856  | .4187 75374  | .4012 35575  | .7214 70632  |
| .1388  | .9081 31729  | .4186 84563  | .4014 07729  | .7216 10764  |
| .1389  | .9081 73593  | .4185 93748  | .4015 79897  | .7217 50914  |
| 1.1390 | 0.9082 15447 | 0.4185 02929 | 1.4017 52079 | 1.7218 91080 |
| .1391  | .9082 57293  | .4184 12105  | .4019 24276  | .7220 31264  |
| .1392  | .9082 99130  | .4183 21277  | .4020 96486  | .7221 71465  |
| .1393  | .9083 40957  | .4182 30445  | .4022 68710  | .7223 11683  |
| .1394  | .9083 82776  | .4181 39609  | .4024 40948  | .7224 51919  |
| 1.1395 | 0.9084 24585 | 0.4180 48768 | 1.4026 13200 | 1.7225 92172 |
| .1396  | .9084 66386  | .4179 57924  | .4027 85466  | .7227 32441  |
| .1397  | .9085 08177  | .4178 67075  | .4029 57747  | .7228 72729  |
| .1398  | .9085 49959  | .4177 76222  | .4031 30041  | .7230 13033  |
| .1399  | .9085 91732  | .4176 85365  | .4033 02349  | .7231 53355  |

| X      | SIN X        | COS X        | TAN X        | COSH X       |
|--------|--------------|--------------|--------------|--------------|
| 1.1400 | 0.9086 38496 | 0.4175 94504 | 1.4084 74213 | 1.7723 83894 |
| .1401  | .9086 75251  | .4175 03639  | .4086 43006  | .7723 34080  |
| .1402  | .9087 16997  | .4174 12789  | .4088 16803  | .7723 14483  |
| .1403  | .9087 58734  | .4173 21335  | .4090 60596  | .7723 14816  |
| .1404  | .9088 00461  | .4172 31017  | .4093 04391  | .7723 15151  |
| 1.1405 | 0.9088 42180 | 0.4171 40135 | 1.4093 04194 | 1.7723 34346 |
| .1406  | .9088 83889  | .4170 49249  | .4095 07991  | .7723 15343  |
| .1407  | .9089 25590  | .4169 58358  | .4097 51788  | .7723 15639  |
| .1408  | .9089 67281  | .4168 67464  | .4099 95585  | .7723 15936  |
| .1409  | .9090 08963  | .4167 76565  | .4102 39382  | .7723 16233  |
| 1.1410 | 0.9090 50636 | 0.4166 85662 | 1.4093 04194 | 1.7723 34533 |
| .1411  | .9090 92300  | .4165 94755  | .4095 71144  | .7723 15859  |
| .1412  | .9091 33955  | .4165 03843  | .4098 14941  | .7723 16156  |
| .1413  | .9091 75601  | .4164 12928  | .4099 58738  | .7723 16453  |
| .1414  | .9092 17238  | .4163 22008  | .4102 02535  | .7723 16750  |
| 1.1415 | 0.9092 58865 | 0.4162 31084 | 1.4093 04194 | 1.7723 34745 |
| .1416  | .9093 00484  | .4161 40158  | .4095 71144  | .7723 15941  |
| .1417  | .9093 42093  | .4160 49224  | .4098 14941  | .7723 16238  |
| .1418  | .9093 83694  | .4159 58283  | .4099 58738  | .7723 16535  |
| .1419  | .9094 25285  | .4158 67349  | .4102 02535  | .7723 16832  |
| 1.1420 | 0.9094 66867 | 0.4157 76403 | 1.4093 04194 | 1.7723 34941 |
| .1421  | .9095 08440  | .4156 85454  | .4095 71144  | .7723 16038  |
| .1422  | .9095 50004  | .4155 94501  | .4098 14941  | .7723 16335  |
| .1423  | .9095 91559  | .4155 03544  | .4099 58738  | .7723 16632  |
| .1424  | .9096 33105  | .4154 12583  | .4102 02535  | .7723 16929  |
| 1.1425 | 0.9096 74642 | 0.4153 21618 | 1.4093 04194 | 1.7723 35139 |
| .1426  | .9097 16169  | .4152 30648  | .4095 71144  | .7723 16136  |
| .1427  | .9097 57688  | .4151 39674  | .4098 14941  | .7723 16433  |
| .1428  | .9097 99197  | .4150 48697  | .4099 58738  | .7723 16730  |
| .1429  | .9098 40698  | .4149 57715  | .4102 02535  | .7723 17027  |
| 1.1430 | 0.9098 82189 | 0.4148 66728 | 1.4093 04194 | 1.7723 35349 |
| .1431  | .9099 23671  | .4147 75738  | .4095 71144  | .7723 16233  |
| .1432  | .9099 65144  | .4146 84744  | .4098 14941  | .7723 16530  |
| .1433  | .9100 06608  | .4145 93745  | .4099 58738  | .7723 16827  |
| .1434  | .9100 48063  | .4145 02742  | .4102 02535  | .7723 17124  |
| 1.1435 | 0.9100 89509 | 0.4144 11735 | 1.4093 04194 | 1.7723 35559 |
| .1436  | .9101 30945  | .4143 20724  | .4095 71144  | .7723 16327  |
| .1437  | .9101 72373  | .4142 29709  | .4098 14941  | .7723 16624  |
| .1438  | .9102 13791  | .4141 38690  | .4099 58738  | .7723 16921  |
| .1439  | .9102 55200  | .4140 47667  | .4102 02535  | .7723 17218  |
| 1.1440 | 0.9102 96601 | 0.4139 56639 | 1.4103 79093 | 1.7723 35769 |
| .1441  | .9103 37992  | .4138 65607  | .4105 51992  | .7723 16421  |
| .1442  | .9103 79374  | .4137 74571  | .4107 24905  | .7723 16718  |
| .1443  | .9104 20747  | .4136 83531  | .4109 97823  | .7723 17015  |
| .1444  | .9104 62110  | .4135 92487  | .4112 70774  | .7723 17312  |
| 1.1445 | 0.9105 03465 | 0.4135 01439 | 1.4112 48763 | 1.7723 35979 |
| .1446  | .9105 44811  | .4134 10388  | .4114 18649  | .7723 16524  |
| .1447  | .9105 86147  | .4133 19330  | .4116 88536  | .7723 16821  |
| .1448  | .9106 27475  | .4132 28269  | .4119 58423  | .7723 17118  |
| .1449  | .9106 68793  | .4131 37206  | .4122 28310  | .7723 17415  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 1.1450 | 0.9107 10102 | 0.4130 46135 | 1.4121 08720 | 1.7303 32637 |
| .1451  | .9107 51402  | .4129 55062  | .4122 81760  | .7304 73857  |
| .1452  | .9107 92693  | .4128 63985  | .4124 54814  | .7306 15094  |
| .1453  | .9108 33975  | .4127 72904  | .4126 27883  | .7307 56348  |
| .1454  | .9108 75248  | .4126 81818  | .4128 00966  | .7308 97619  |
| 1.1455 | 0.9109 16511 | 0.4125 90729 | 1.4129 74062 | 1.7310 38908 |
| .1456  | .9109 57766  | .4124 99635  | .4131 47173  | .7311 80214  |
| .1457  | .9109 99011  | .4124 08537  | .4133 20298  | .7313 21537  |
| .1458  | .9110 40247  | .4123 17435  | .4134 93438  | .7314 62878  |
| .1459  | .9110 81475  | .4122 26329  | .4136 66591  | .7316 04236  |
| 1.1460 | 0.9111 22693 | 0.4121 35219 | 1.4138 39759 | 1.7317 45611 |
| .1461  | .9111 63902  | .4120 44105  | .4140 12940  | .7318 87004  |
| .1462  | .9112 05102  | .4119 52986  | .4141 86136  | .7320 28414  |
| .1463  | .9112 46292  | .4118 61864  | .4143 59346  | .7321 69841  |
| .1464  | .9112 87474  | .4117 70737  | .4145 32570  | .7323 11286  |
| 1.1465 | 0.9113 28646 | 0.4116 79606 | 1.4147 05808 | 1.7324 52748 |
| .1466  | .9113 69810  | .4115 88471  | .4148 79060  | .7325 94227  |
| .1467  | .9114 10964  | .4114 97332  | .4150 52327  | .7327 35724  |
| .1468  | .9114 52109  | .4114 06189  | .4152 25608  | .7328 77238  |
| .1469  | .9114 93245  | .4113 15042  | .4153 98902  | .7330 18769  |
| 1.1470 | 0.9115 34372 | 0.4112 23890 | 1.4155 72211 | 1.7331 60317 |
| .1471  | .9115 75490  | .4111 32735  | .4157 45534  | .7333 01883  |
| .1472  | .9116 16599  | .4110 41575  | .4159 18872  | .7334 43466  |
| .1473  | .9116 57698  | .4109 50412  | .4160 92223  | .7335 85067  |
| .1474  | .9116 98789  | .4108 59244  | .4162 65589  | .7337 26685  |
| 1.1475 | 0.9117 39870 | 0.4107 68072 | 1.4164 38968 | 1.7338 68320 |
| .1476  | .9117 80943  | .4106 76896  | .4166 12362  | .7340 09973  |
| .1477  | .9118 22006  | .4105 85716  | .4167 85770  | .7341 51643  |
| .1478  | .9118 63060  | .4104 94531  | .4169 59193  | .7342 93330  |
| .1479  | .9119 04105  | .4104 03343  | .4171 32629  | .7344 35034  |
| 1.1480 | 0.9119 45140 | 0.4103 12151 | 1.4173 06080 | 1.7345 76756 |
| .1481  | .9119 86167  | .4102 20954  | .4174 79544  | .7347 18496  |
| .1482  | .9120 27185  | .4101 29753  | .4176 53023  | .7348 60252  |
| .1483  | .9120 68193  | .4100 38549  | .4178 26517  | .7350 02026  |
| .1484  | .9121 09192  | .4099 47340  | .4180 00024  | .7351 43838  |
| 1.1485 | 0.9121 50182 | 0.4098 56127 | 1.4181 73545 | 1.7352 85626 |
| .1486  | .9121 91164  | .4097 64910  | .4183 47081  | .7354 27452  |
| .1487  | .9122 32135  | .4096 73688  | .4185 20631  | .7355 69296  |
| .1488  | .9122 73098  | .4095 82463  | .4186 94195  | .7357 11156  |
| .1489  | .9123 14052  | .4094 91234  | .4188 67773  | .7358 53034  |
| 1.1490 | 0.9123 54997 | 0.4094 00000 | 1.4190 41365 | 1.7359 94930 |
| .1491  | .9123 95932  | .4093 08763  | .4192 14972  | .7361 36843  |
| .1492  | .9124 36858  | .4092 17521  | .4193 88593  | .7362 78773  |
| .1493  | .9124 77775  | .4091 26276  | .4195 62228  | .7364 20720  |
| .1494  | .9125 18684  | .4090 35026  | .4197 35877  | .7365 62685  |
| 1.1495 | 0.9125 59582 | 0.4089 43772 | 1.4199 09540 | 1.7367 04668 |
| .1496  | .9126 00472  | .4088 52514  | .4200 83218  | .7368 46667  |
| .1497  | .9126 41353  | .4087 61252  | .4202 56910  | .7369 88684  |
| .1498  | .9126 82225  | .4086 69986  | .4204 30616  | .7371 30719  |
| .1499  | .9127 23087  | .4085 78715  | .4206 04336  | .7372 72770  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.1500 | 0.9127 63940 | 0.4084 87441 | 1.4207 78070 | 1.7374 14840 |
| .1501  | .9128 04784  | .4083 98182  | .4209 51315  | .7375 56826  |
| .1502  | .9128 45619  | .4083 04880  | .4211 25582  | .7376 89030  |
| .1503  | .9128 86445  | .4082 15588  | .4212 99859  | .7378 41151  |
| .1504  | .9129 27232  | .4081 22308  | .4214 73150  | .7379 83280  |
| 1.1505 | 0.9129 68070 | 0.4080 31008 | 1.4216 46355 | 1.7381 25446 |
| .1506  | .9130 08869  | .4079 59709  | .4218 20775  | .7382 67619  |
| .1507  | .9130 49658  | .4078 48408  | .4219 94808  | .7384 08210  |
| .1508  | .9130 90433  | .4077 57099  | .4221 68457  | .7385 52018  |
| .1509  | .9131 31209  | .4076 35789  | .4223 42319  | .7386 94244  |
| 1.1510 | 0.9131 71971 | 0.4075 74473 | 1.4225 16196 | 1.7388 56487 |
| .1511  | .9132 12724  | .4074 83154  | .4226 90086  | .7389 75747  |
| .1512  | .9132 53468  | .4073 91830  | .4228 63691  | .7391 21025  |
| .1513  | .9132 94202  | .4073 00503  | .4230 37911  | .7392 63320  |
| .1514  | .9133 34928  | .4072 09171  | .4232 11841  | .7394 05632  |
| 1.1515 | 0.9133 75644 | 0.4071 17836 | 1.4233 85792 | 1.7395 47962 |
| .1516  | .9134 16352  | .4070 26496  | .4235 59754  | .7396 90309  |
| .1517  | .9134 57050  | .4069 35153  | .4237 33730  | .7398 32674  |
| .1518  | .9134 97739  | .4068 43805  | .4239 07720  | .7399 75056  |
| .1519  | .9135 38418  | .4067 52453  | .4240 81725  | .7401 17456  |
| 1.1520 | 0.9135 79089 | 0.4066 61097 | 1.4242 55744 | 1.7402 59872 |
| .1521  | .9136 19751  | .4065 69737  | .4244 29777  | .7404 02307  |
| .1522  | .9136 60403  | .4064 78373  | .4246 03824  | .7405 44758  |
| .1523  | .9137 01046  | .4063 87005  | .4247 77836  | .7406 87227  |
| .1524  | .9137 41680  | .4062 95633  | .4249 51962  | .7408 29714  |
| 1.1525 | 0.9137 82305 | 0.4062 04257 | 1.4251 26052 | 1.7409 72212 |
| .1526  | .9138 22921  | .4061 12877  | .4253 00153  | .7411 14739  |
| .1527  | .9138 63528  | .4060 21492  | .4254 74254  | .7412 57273  |
| .1528  | .9139 04126  | .4059 30104  | .4256 48408  | .7413 99834  |
| .1529  | .9139 44714  | .4058 38711  | .4258 22555  | .7415 42408  |
| 1.1530 | 0.9139 85293 | 0.4057 47315 | 1.4259 98713 | 1.7416 84939 |
| .1531  | .9140 25863  | .4056 55914  | .4261 72882  | .7418 27607  |
| .1532  | .9140 66424  | .4055 64510  | .4263 47033  | .7419 70233  |
| .1533  | .9141 06976  | .4054 73101  | .4265 21286  | .7421 12876  |
| .1534  | .9141 47519  | .4053 81698  | .4266 95504  | .7422 55537  |
| 1.1535 | 0.9141 88053 | 0.4052 90272 | 1.4268 67737 | 1.7423 98215 |
| .1536  | .9142 28577  | .4051 98851  | .4270 41934  | .7425 40910  |
| .1537  | .9142 69092  | .4051 07426  | .4272 16245  | .7426 83623  |
| .1538  | .9143 09599  | .4050 15997  | .4273 90580  | .7428 26353  |
| .1539  | .9143 50096  | .4049 24564  | .4275 64810  | .7429 69101  |
| 1.1540 | 0.9143 90584 | 0.4048 33127 | 1.4277 39114 | 1.7431 11866 |
| .1541  | .9144 31062  | .4047 41686  | .4279 13433  | .7432 54649  |
| .1542  | .9144 71532  | .4046 50241  | .4280 87735  | .7433 97442  |
| .1543  | .9145 11992  | .4045 58792  | .4282 62113  | .7435 40268  |
| .1544  | .9145 52444  | .4044 67338  | .4284 36487  | .7436 83101  |
| 1.1545 | 0.9145 92886 | 0.4043 75881 | 1.4285 10849 | 1.7438 25954 |
| .1546  | .9146 33319  | .4042 84420  | .4286 85283  | .7439 68824  |
| .1547  | .9146 73743  | .4041 92954  | .4288 59731  | .7441 11711  |
| .1548  | .9147 14157  | .4041 01435  | .4290 34181  | .7442 54616  |
| .1549  | .9147 54563  | .4040 10012  | .4292 08647  | .7443 97539  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.1550 | 0.9147 94959 | 0.4039 18534 | 1.4294 82940 | 1.7445 40477 |
| .1551  | .9148 35347  | .4038 27053  | .4296 57402  | .7446 83434  |
| .1552  | .9143 75725  | .4037 35567  | .4298 31877  | .7448 26409  |
| .1553  | .9149 16094  | .4036 44077  | .4300 06367  | .7449 69401  |
| .1554  | .9149 56454  | .4035 52584  | .4301 30871  | .7451 12410  |
| 1.1555 | 0.9149 96804 | 0.4034 61086 | 1.4305 55389 | 1.7452 55437 |
| .1556  | .9150 37146  | .4033 69584  | .4305 29922  | .7453 98481  |
| .1557  | .9150 77478  | .4032 78079  | .4307 04469  | .7455 41543  |
| .1558  | .9151 17801  | .4031 86569  | .4308 79030  | .7456 84622  |
| .1559  | .9151 58116  | .4030 95055  | .4310 53606  | .7458 27719  |
| 1.1560 | 0.9151 98420 | 0.4030 03537 | 1.4312 28196 | 1.7459 70833 |
| .1561  | .9152 38716  | .4029 12015  | .4314 02300  | .7461 13964  |
| .1562  | .9152 79003  | .4028 20490  | .4315 77419  | .7462 57113  |
| .1563  | .9153 19280  | .4027 28960  | .4317 52051  | .7464 00280  |
| .1564  | .9153 59549  | .4026 37426  | .4319 26699  | .7465 43464  |
| 1.1565 | 0.9153 99808 | 0.4025 45888 | 1.4321 01360 | 1.7466 86665 |
| .1566  | .9154 40058  | .4024 54346  | .4322 76036  | .7468 29884  |
| .1567  | .9154 80299  | .4023 62800  | .4324 50726  | .7469 73120  |
| .1568  | .9155 20530  | .4022 71250  | .4326 25431  | .7471 16374  |
| .1569  | .9155 60753  | .4021 79696  | .4328 00149  | .7472 59645  |
| 1.1570 | 0.9156 00966 | 0.4020 88138 | 1.4329 74883 | 1.7474 02934 |
| .1571  | .9156 41171  | .4019 96575  | .4331 49630  | .7475 46240  |
| .1572  | .9156 81366  | .4019 05009  | .4333 24392  | .7476 89564  |
| .1573  | .9157 21552  | .4018 13439  | .4334 99168  | .7478 32905  |
| .1574  | .9157 61728  | .4017 21865  | .4336 73958  | .7479 76264  |
| 1.1575 | 0.9158 01896 | 0.4016 30287 | 1.4338 48763 | 1.7481 19640 |
| .1576  | .9158 42054  | .4015 38705  | .4340 23582  | .7482 63034  |
| .1577  | .9158 82204  | .4014 47118  | .4341 98416  | .7484 06445  |
| .1578  | .9159 22344  | .4013 55528  | .4343 73264  | .7485 49873  |
| .1579  | .9159 62475  | .4012 63934  | .4345 48126  | .7486 93319  |
| 1.1580 | 0.9160 02597 | 0.4011 72336 | 1.4347 23002 | 1.7488 36783 |
| .1581  | .9160 42709  | .4010 80733  | .4348 97893  | .7489 80264  |
| .1582  | .9160 82813  | .4009 89127  | .4350 72798  | .7491 23762  |
| .1583  | .9161 22907  | .4008 97517  | .4352 47718  | .7492 67279  |
| .1584  | .9161 62992  | .4008 05903  | .4354 22652  | .7494 10812  |
| 1.1585 | 0.9162 03068 | 0.4007 14284 | 1.4355 97600 | 1.7495 54363 |
| .1586  | .9162 43135  | .4006 22662  | .4357 72563  | .7496 97932  |
| .1587  | .9162 83193  | .4005 31036  | .4359 47540  | .7498 41518  |
| .1588  | .9163 23241  | .4004 39405  | .4361 22531  | .7499 85121  |
| .1589  | .9163 63281  | .4003 47771  | .4362 97537  | .7501 28742  |
| 1.1590 | 0.9164 03311 | 0.4002 56133 | 1.4364 72557 | 1.7502 72321 |
| .1591  | .9164 43332  | .4001 64490  | .4366 47591  | .7504 16037  |
| .1592  | .9164 83344  | .4000 72844  | .4368 22640  | .7505 59710  |
| .1593  | .9165 23347  | .3999 81194  | .4369 97703  | .7507 03401  |
| .1594  | .9165 63340  | .3998 89539  | .4371 72781  | .7508 47110  |
| 1.1595 | 0.9166 03324 | 0.3997 97881 | 1.4373 47872 | 1.7509 90336 |
| .1596  | .9166 43300  | .3997 06219  | .4375 22979  | .7511 34579  |
| .1597  | .9166 83266  | .3996 14552  | .4376 98069  | .7512 78340  |
| .1598  | .9167 23223  | .3995 22832  | .4378 73234  | .7514 22119  |
| .1599  | .9167 63170  | .3994 31208  | .4380 48384  | .7515 65915  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.1600 | 0.9168 03109 | 0.3993 39529 | 1.4382 23548 | 1.7517 09728 |
| .1601  | .9168 43038  | .3992 47847  | .4383 39723  | .7518 53580  |
| .1602  | .9168 82958  | .3991 56181  | .4385 73918  | .7519 97408  |
| .1603  | .9169 22869  | .3990 64471  | .4387 49125  | .7521 41274  |
| .1604  | .9169 62771  | .3989 72776  | .4389 24347  | .7522 85158  |
| 1.1605 | 0.9170 02664 | 0.3988 81078 | 1.4390 99582 | 1.7524 29059 |
| .1606  | .9170 42547  | .3987 89376  | .4392 74232  | .7525 72978  |
| .1607  | .9170 82422  | .3986 97669  | .4394 50097  | .7527 16914  |
| .1608  | .9171 22287  | .3986 05959  | .4396 25376  | .7528 60868  |
| .1609  | .9171 62143  | .3985 14245  | .4398 00669  | .7530 04839  |
| 1.1610 | 0.9172 01990 | 0.3984 22527 | 1.4399 75977 | 1.7531 48828 |
| .1611  | .9172 41827  | .3983 30805  | .4401 51299  | .7532 92835  |
| .1612  | .9172 81656  | .3982 39078  | .4403 26635  | .7534 36958  |
| .1613  | .9173 21475  | .3981 47348  | .4405 01986  | .7535 80900  |
| .1614  | .9173 61285  | .3980 55614  | .4406 77351  | .7537 24959  |
| 1.1615 | 0.9174 01086 | 0.3979 63876 | 1.4408 52731 | 1.7538 69035 |
| .1616  | .9174 40878  | .3978 72134  | .4410 28125  | .7540 13129  |
| .1617  | .9174 80661  | .3977 80383  | .4412 03534  | .7541 57241  |
| .1618  | .9175 20434  | .3976 88638  | .4413 78957  | .7543 01370  |
| .1619  | .9175 60199  | .3975 96884  | .4415 54394  | .7544 45517  |
| 1.1620 | 0.9175 99954 | 0.3975 05126 | 1.4417 29846 | 1.7545 89681 |
| .1621  | .9176 39700  | .3974 13364  | .4419 05312  | .7547 33863  |
| .1622  | .9176 79436  | .3973 21598  | .4420 80793  | .7548 78062  |
| .1623  | .9177 19164  | .3972 29828  | .4422 56233  | .7550 22279  |
| .1624  | .9177 58882  | .3971 38054  | .4424 31797  | .7551 66513  |
| 1.1625 | 0.9177 98592 | 0.3970 46276 | 1.4426 07321 | 1.7553 10765 |
| .1626  | .9178 38292  | .3969 54494  | .4427 82859  | .7554 55035  |
| .1627  | .9178 77982  | .3968 62708  | .4429 58412  | .7555 99322  |
| .1628  | .9179 17664  | .3967 70919  | .4431 33979  | .7557 43626  |
| .1629  | .9179 57337  | .3966 79125  | .4433 09561  | .7558 87949  |
| 1.1630 | 0.9179 97000 | 0.3965 87327 | 1.4434 85157 | 1.7560 32288 |
| .1631  | .9180 36654  | .3964 95525  | .4436 60767  | .7561 76646  |
| .1632  | .9180 76299  | .3964 03720  | .4438 36392  | .7563 21020  |
| .1633  | .9181 15935  | .3963 11910  | .4440 12031  | .7564 65413  |
| .1634  | .9181 55561  | .3962 20097  | .4441 87685  | .7566 09823  |
| 1.1635 | 0.9181 95179 | 0.3961 28279 | 1.4443 63363 | 1.7567 54250 |
| .1636  | .9182 34787  | .3960 36458  | .4445 39036  | .7568 98696  |
| .1637  | .9182 74386  | .3959 44632  | .4447 14733  | .7570 43158  |
| .1638  | .9183 13976  | .3958 52803  | .4448 90445  | .7571 87633  |
| .1639  | .9183 53557  | .3957 60969  | .4450 66171  | .7573 32136  |
| 1.1640 | 0.9183 93128 | 0.3956 69132 | 1.4452 41911 | 1.7574 76652 |
| .1641  | .9184 32691  | .3955 77291  | .4454 17636  | .7576 21135  |
| .1642  | .9184 72244  | .3954 85446  | .4455 93435  | .7577 65735  |
| .1643  | .9185 11783  | .3953 93596  | .4457 69219  | .7579 10303  |
| .1644  | .9185 51322  | .3953 01743  | .4459 45017  | .7580 54889  |
| 1.1645 | 0.9185 90848 | 0.3952 09886 | 1.4461 20830 | 1.7581 99492 |
| .1646  | .9186 30364  | .3951 18025  | .4462 96657  | .7583 44113  |
| .1647  | .9186 69872  | .3950 26160  | .4464 72439  | .7584 88752  |
| .1648  | .9187 09370  | .3949 34291  | .4466 48255  | .7586 33408  |
| .1649  | .9187 48858  | .3948 42418  | .4468 24023  | .7587 78081  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.1650 | 0.9187 88338 | 0.3947 50541 | 1.4470 00111 | 1.7589 22773 |
| .1651  | .9188 27809  | .3946 58660  | .4471 76010  | .7590 67481  |
| .1652  | .9188 67270  | .3945 66776  | .4473 51924  | .7592 12208  |
| .1653  | .9189 06722  | .3944 74887  | .4475 27853  | .7593 56952  |
| .1654  | .9189 46165  | .3943 82994  | .4477 03795  | .7595 01713  |
| 1.1655 | 0.9139 85598 | 0.3942 91098 | 1.4478 79753 | 1.7596 46493 |
| .1656  | .9190 25023  | .3941 99197  | .4480 55725  | .7597 91289  |
| .1657  | .9190 64438  | .3941 07293  | .4482 31711  | .7599 36104  |
| .1658  | .9191 03844  | .3940 15384  | .4484 07712  | .7600 80936  |
| .1659  | .9191 43241  | .3939 23472  | .4485 83727  | .7602 25785  |
| 1.1660 | 0.9191 82629 | 0.3938 31556 | 1.4487 59757 | 1.7603 70652 |
| .1661  | .9192 22008  | .3937 39635  | .4489 35801  | .7605 15537  |
| .1662  | .9192 61377  | .3936 47711  | .4491 11360  | .7606 60440  |
| .1663  | .9193 00737  | .3935 55783  | .4492 87934  | .7608 05360  |
| .1664  | .9193 40088  | .3934 63851  | .4494 64021  | .7609 50297  |
| 1.1665 | 0.9193 79430 | 0.3933 71915 | 1.4496 40124 | 1.7610 95252 |
| .1666  | .9194 18763  | .3932 79975  | .4498 16240  | .7612 40225  |
| .1667  | .9194 58086  | .3931 88031  | .4499 92372  | .7613 85216  |
| .1668  | .9194 97400  | .3930 96084  | .4501 68517  | .7615 30224  |
| .1669  | .9195 36705  | .3930 04132  | .4503 44678  | .7616 75249  |
| 1.1670 | 0.9195 76001 | 0.3929 12176 | 1.4505 20852 | 1.7618 20293 |
| .1671  | .9196 15288  | .3928 20217  | .4506 97042  | .7619 65354  |
| .1672  | .9196 54565  | .3927 28253  | .4508 73246  | .7621 10432  |
| .1673  | .9196 93833  | .3926 36286  | .4510 49464  | .7622 55528  |
| .1674  | .9197 33092  | .3925 44314  | .4512 25697  | .7624 00642  |
| 1.1675 | 0.9197 72342 | 0.3924 52339 | 1.4514 01944 | 1.7625 45773 |
| .1676  | .9198 11583  | .3923 60360  | .4515 78206  | .7626 90922  |
| .1677  | .9198 50814  | .3922 68377  | .4517 54482  | .7628 36089  |
| .1678  | .9198 90037  | .3921 76390  | .4519 30773  | .7629 81273  |
| .1679  | .9199 29250  | .3920 84399  | .4521 07078  | .7631 26475  |
| 1.1680 | 0.9199 68453 | 0.3919 92404 | 1.4522 83398 | 1.7632 71695 |
| .1681  | .9200 07648  | .3919 00405  | .4524 59733  | .7634 16932  |
| .1682  | .9200 46833  | .3918 08402  | .4526 36082  | .7635 62187  |
| .1683  | .9200 86010  | .3917 16396  | .4528 12445  | .7637 07459  |
| .1684  | .9201 25177  | .3916 24385  | .4529 88823  | .7638 52749  |
| 1.1685 | 0.9201 64335 | 0.3915 32371 | 1.4531 65216 | 1.7639 98057 |
| .1686  | .9202 03483  | .3914 40352  | .4533 41623  | .7641 43382  |
| .1687  | .9202 42623  | .3913 48330  | .4535 18044  | .7642 88725  |
| .1688  | .9202 81753  | .3912 56304  | .4536 94481  | .7644 34086  |
| .1689  | .9203 20874  | .3911 64274  | .4538 70931  | .7645 79464  |
| 1.1690 | 0.9203 59986 | 0.3910 72240 | 1.4540 47396 | 1.7647 24860 |
| .1691  | .9203 99088  | .3909 80202  | .4542 23876  | .7648 70273  |
| .1692  | .9204 38182  | .3908 88160  | .4544 00371  | .7650 15705  |
| .1693  | .9204 77266  | .3907 96114  | .4545 76879  | .7651 61154  |
| .1694  | .9205 16341  | .3907 04064  | .4547 53403  | .7653 06620  |
| 1.1695 | 0.9205 55407 | 0.3906 12011 | 1.4549 29941 | 1.7654 52104 |
| .1696  | .9205 94463  | .3905 19953  | .4551 06493  | .7655 97606  |
| .1697  | .9206 33511  | .3904 27892  | .4552 83060  | .7657 43126  |
| .1698  | .9206 72549  | .3903 35827  | .4554 59642  | .7658 88663  |
| .1699  | .9207 11578  | .3902 43757  | .4556 36238  | .7660 34217  |

| x      | sin x        | cos x        | sin <sup>2</sup> x | cosh x       |
|--------|--------------|--------------|--------------------|--------------|
| 1.1700 | 0.9207 50598 | 0.3901 51634 | 1.4558 12849       | 1.7661 79790 |
| .1701  | .9207 89603  | .3900 59607  | .4559 39474        | .7663 25320  |
| .1702  | .9208 28610  | .3899 67526  | .4561 66114        | .7664 70923  |
| .1703  | .9208 67602  | .3898 75442  | .4563 42763        | .7666 16613  |
| .1704  | .9209 06585  | .3897 33353  | .4565 19437        | .7667 62256  |
| 1.1705 | 0.9209 45558 | 0.3896 91260 | 1.4566 96121       | 1.7669 07917 |
| .1706  | .9209 84523  | .3895 99164  | .4563 72319        | .7670 53596  |
| .1707  | .9210 23478  | .3895 07063  | .4570 49531        | .7671 99232  |
| .1708  | .9210 62424  | .3894 14959  | .4572 26258        | .7673 45005  |
| .1709  | .9211 01361  | .3893 22851  | .4574 03000        | .7674 90737  |
| 1.1710 | 0.9211 40289 | 0.3892 30739 | 1.4575 79757       | 1.7676 36436 |
| .1711  | .9211 79207  | .3891 38623  | .4577 56523        | .7677 82253  |
| .1712  | .9212 18117  | .3890 46503  | .4579 33313        | .7679 23037  |
| .1713  | .9212 57017  | .3889 54379  | .4531 10113        | .7680 73840  |
| .1714  | .9212 95908  | .3888 62252  | .4582 59628        | .7682 19659  |
| 1.1715 | 0.9213 34789 | 0.3887 70120 | 1.4584 63757       | 1.7683 65497 |
| .1716  | .9213 73662  | .3886 77985  | .4586 40601        | .7685 11352  |
| .1717  | .9214 12525  | .3885 85845  | .4588 17459        | .7686 57225  |
| .1718  | .9214 51379  | .3884 93702  | .4589 94332        | .7688 03116  |
| .1719  | .9214 90224  | .3884 01555  | .4591 71220        | .7689 49024  |
| 1.1720 | 0.9215 29059 | 0.3883 09404 | 1.4593 43122       | 1.7690 94950 |
| .1721  | .9215 67885  | .3882 17249  | .4595 25039        | .7692 40394  |
| .1722  | .9216 06703  | .3881 25090  | .4597 01970        | .7693 86855  |
| .1723  | .9216 45510  | .3880 32928  | .4598 78916        | .7695 32834  |
| .1724  | .9216 84309  | .3879 40761  | .4600 55877        | .7696 79831  |
| 1.1725 | 0.9217 23099 | 0.3878 48591 | 1.4602 32852       | 1.7698 24845 |
| .1726  | .9217 61879  | .3877 56417  | .4604 09842        | .7699 70877  |
| .1727  | .9218 00650  | .3876 64239  | .4605 86846        | .7701 16927  |
| .1728  | .9218 39412  | .3875 72057  | .4607 63865        | .7702 62995  |
| .1729  | .9218 78164  | .3874 79871  | .4609 40899        | .7704 09030  |
| 1.1730 | 0.9219 16908 | 0.3873 87681 | 1.4611 17947       | 1.7705 55183 |
| .1731  | .9219 55642  | .3872 95487  | .4612 95010        | .7707 01303  |
| .1732  | .9219 94367  | .3872 03290  | .4614 72087        | .7709 47442  |
| .1733  | .9220 33082  | .3871 11088  | .4616 49179        | .7709 93598  |
| .1734  | .9220 71789  | .3870 18883  | .4618 26236        | .7711 39772  |
| 1.1735 | 0.9221 10486 | 0.3869 26674 | 1.4620 03407       | 1.7712 85963 |
| .1736  | .9221 49174  | .3868 34461  | .4621 80543        | .7714 32172  |
| .1737  | .9221 87853  | .3867 42244  | .4623 57694        | .7715 78399  |
| .1738  | .9222 26523  | .3866 50024  | .4625 34859        | .7717 24644  |
| .1739  | .9222 65183  | .3865 57799  | .4627 12039        | .7718 70906  |
| 1.1740 | 0.9223 03834 | 0.3864 65571 | 1.4628 89233       | .7720 17136  |
| .1741  | .9223 42476  | .3863 73338  | .4630 66442        | .7721 63434  |
| .1742  | .9223 81109  | .3862 81102  | .4632 43666        | .7723 09800  |
| .1743  | .9224 19732  | .3861 88862  | .4634 20904        | .7724 56133  |
| .1744  | .9224 58347  | .3860 96618  | .4635 98157        | .7726 02484  |
| 1.1745 | 0.9224 96952 | 0.3860 04370 | 1.4637 75425       | 1.7727 48352 |
| .1746  | .9225 35548  | .3859 12119  | .4639 52707        | .7728 95239  |
| .1747  | .9225 74134  | .3858 19863  | .4641 30004        | .7730 41643  |
| .1748  | .9226 12712  | .3857 27604  | .4643 07315        | .7731 88065  |
| .1749  | .9226 51280  | .3856 35341  | .4644 84641        | .7733 34504  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.1750 | 0.9226 89839 | 0.3855 43074 | 1.4646 61982 | 1.7734 80962 |
| .1751  | .9227 28388  | .3854 50803  | .4648 39337  | .7736 27437  |
| .1752  | .9227 66929  | .3853 58523  | .4650 16708  | .7737 73930  |
| .1753  | .9228 05460  | .3852 66249  | .4651 94092  | .7739 20440  |
| .1754  | .9228 43982  | .3851 73967  | .4653 71492  | .7740 66968  |
| 1.1755 | 0.9228 82495 | 0.3850 81683 | 1.4655 48906 | 1.7742 13514 |
| .1756  | .9229 20998  | .3849 89390  | .4657 26334  | .7743 60078  |
| .1757  | .9229 59493  | .3848 97098  | .4659 03778  | .7745 06660  |
| .1758  | .9229 97978  | .3848 04753  | .4660 81236  | .7746 53259  |
| .1759  | .9230 36454  | .3847 12407  | .4662 58708  | .7747 99876  |
| 1.1760 | 0.9230 74920 | 0.3846 20181 | 1.4664 36196 | 1.7749 46511 |
| .1761  | .9231 13378  | .3845 27882  | .4666 13698  | .7750 93163  |
| .1762  | .9231 51826  | .3844 35568  | .4667 91214  | .7752 39833  |
| .1763  | .9231 90265  | .3843 43251  | .4669 68746  | .7753 86521  |
| .1764  | .9232 28695  | .3842 50930  | .4671 46292  | .7755 33227  |
| 1.1765 | 0.9232 67115 | 0.3841 58603 | 1.4673 23852 | 1.7756 79951 |
| .1766  | .9233 05526  | .3840 66277  | .4675 01428  | .7758 26692  |
| .1767  | .9233 43928  | .3839 73943  | .4676 79018  | .7759 73451  |
| .1768  | .9233 82321  | .3838 81609  | .4678 56622  | .7761 20228  |
| .1769  | .9234 20705  | .3837 89263  | .4680 34242  | .7762 67022  |
| 1.1770 | 0.9234 59079 | 0.3836 96924 | 1.4682 11876 | 1.7764 13835 |
| .1771  | .9234 97444  | .3836 04573  | .4683 89524  | .7765 60665  |
| .1772  | .9235 35800  | .3835 12225  | .4685 67188  | .7767 07513  |
| .1773  | .9235 74146  | .3834 19869  | .4687 44866  | .7768 54378  |
| .1774  | .9236 12484  | .3833 27510  | .4689 22559  | .7770 01262  |
| 1.1775 | 0.9236 50812 | 0.3832 35147 | 1.4691 00266 | 1.7771 48163 |
| .1776  | .9236 89131  | .3831 42780  | .4692 77988  | .7772 95082  |
| .1777  | .9237 27441  | .3830 50408  | .4694 55725  | .7774 42018  |
| .1778  | .9237 65741  | .3829 58034  | .4696 33477  | .7775 88973  |
| .1779  | .9238 04032  | .3828 65656  | .4698 11243  | .7777 35945  |
| 1.1780 | 0.9238 42314 | 0.3827 73273 | 1.4699 89024 | 1.7778 82935 |
| .1781  | .9238 80587  | .3826 80887  | .4701 66820  | .7780 29943  |
| .1782  | .9239 18850  | .3825 88497  | .4703 44630  | .7781 76968  |
| .1783  | .9239 57104  | .3824 96103  | .4705 22455  | .7783 24012  |
| .1784  | .9239 95349  | .3824 03706  | .4707 00295  | .7784 71073  |
| 1.1785 | 0.9240 33585 | 0.3823 11304 | 1.4708 78149 | 1.7786 18152 |
| .1786  | .9240 71812  | .3822 18899  | .4710 56018  | .7787 65248  |
| .1787  | .9241 10029  | .3821 26490  | .4712 33902  | .7789 12363  |
| .1788  | .9241 48237  | .3820 34077  | .4714 11801  | .7790 59495  |
| .1789  | .9241 86436  | .3819 41660  | .4715 89714  | .7792 06645  |
| 1.1790 | 0.9242 24625 | 0.3818 49240 | 1.4717 67642 | 1.7793 53313 |
| .1791  | .9242 62806  | .3817 56815  | .4719 45585  | .7795 00999  |
| .1792  | .9243 00977  | .3816 64387  | .4721 23542  | .7796 48202  |
| .1793  | .9243 39139  | .3815 71955  | .4723 01515  | .7797 95424  |
| .1794  | .9243 77291  | .3814 79519  | .4724 79501  | .7799 42663  |
| 1.1795 | 0.9244 15434 | 0.3813 87080 | 1.4726 57503 | 1.7800 89919 |
| .1796  | .9244 53569  | .3812 94636  | .4728 35519  | .7802 37194  |
| .1797  | .9244 91693  | .3812 02199  | .4730 13551  | .7803 84487  |
| .1798  | .9245 29809  | .3811 09738  | .4731 91596  | .7805 31797  |
| .1799  | .9245 67915  | .3810 17283  | .4733 69657  | .7806 79125  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.1800 | 0.9246 06012 | 0.3809 24824 | 1.4735 47732 | 1.7808 26471 |
| .1801  | .9246 44100  | .3808 32362  | .4737 25822  | .7809 73834  |
| .1802  | .9246 82179  | .3807 39896  | .4739 03927  | .7811 21216  |
| .1803  | .9247 20248  | .3806 47425  | .4740 82046  | .7812 68615  |
| .1804  | .9247 58308  | .3805 54951  | .4742 60181  | .7814 16032  |
| 1.1805 | 0.9247 96359 | 0.3804 62474 | 1.4744 38330 | 1.7815 63467 |
| .1806  | .9248 34401  | .3803 69992  | .4746 16493  | .7817 10920  |
| .1807  | .9248 72433  | .3802 77507  | .4747 94672  | .7819 58391  |
| .1808  | .9249 10456  | .3801 85018  | .4749 72865  | .7820 05879  |
| .1809  | .9249 48470  | .3800 92525  | .4751 51073  | .7821 53385  |
| 1.1810 | 0.9249 86475 | 0.3800 00028 | 1.4753 29296 | 1.7823 00909 |
| .1811  | .9250 24470  | .3799 07527  | .4755 07533  | .7824 48451  |
| .1812  | .9250 62456  | .3798 15023  | .4756 85785  | .7825 96011  |
| .1813  | .9251 00433  | .3797 22515  | .4758 64052  | .7827 43588  |
| .1814  | .9251 38401  | .3796 30003  | .4760 42334  | .7828 91183  |
| 1.1815 | 0.9251 76359 | 0.3795 37487 | 1.4762 20631 | 1.7830 38797 |
| .1816  | .9252 14308  | .3794 44968  | .4763 98942  | .7831 86428  |
| .1817  | .9252 52248  | .3793 52444  | .4765 77268  | .7833 34078  |
| .1818  | .9252 90179  | .3792 59917  | .4767 55609  | .7834 81743  |
| .1819  | .9253 28100  | .3791 67386  | .4769 33964  | .7836 29428  |
| 1.1820 | 0.9253 66012 | 0.3790 74852 | 1.4771 12335 | 1.7837 77130 |
| .1821  | .9254 03915  | .3789 82313  | .4772 90720  | .7839 24850  |
| .1822  | .9254 41809  | .3788 89771  | .4774 69120  | .7840 72588  |
| .1823  | .9254 79693  | .3787 97225  | .4776 47534  | .7842 20344  |
| .1824  | .9255 17568  | .3787 04675  | .4778 25964  | .7843 68117  |
| 1.1825 | 0.9255 55434 | 0.3786 12121 | 1.4780 04408 | 1.7845 15909 |
| .1826  | .9255 93291  | .3785 19564  | .4781 82867  | .7846 63718  |
| .1827  | .9256 31138  | .3784 27003  | .4783 61341  | .7848 11546  |
| .1828  | .9256 68976  | .3783 34438  | .4785 39829  | .7849 59391  |
| .1829  | .9257 06805  | .3782 41869  | .4787 18332  | .7851 07254  |
| 1.1830 | 0.9257 44624 | 0.3781 49296 | 1.4788 96851 | 1.7852 55134 |
| .1831  | .9257 82435  | .3780 56720  | .4790 75383  | .7854 03033  |
| .1832  | .9258 20236  | .3779 64140  | .4792 53931  | .7855 50949  |
| .1833  | .9258 58028  | .3778 71556  | .4794 32494  | .7856 98884  |
| .1834  | .9258 95810  | .3777 78968  | .4796 11071  | .7858 46836  |
| 1.1835 | 0.9259 33583 | 0.3776 86377 | 1.4797 89663 | 1.7859 94806 |
| .1836  | .9259 71347  | .3775 93782  | .4799 68270  | .7861 42794  |
| .1837  | .9260 09102  | .3775 01182  | .4801 46892  | .7862 90800  |
| .1838  | .9260 46848  | .3774 08580  | .4803 25528  | .7864 38823  |
| .1839  | .9260 84584  | .3773 15973  | .4805 04179  | .7865 86865  |
| 1.1840 | 0.9261 22311 | 0.3772 23363 | 1.4806 82845 | 1.7867 34924 |
| .1841  | .9261 60029  | .3771 30749  | .4808 61526  | .7868 83001  |
| .1842  | .9261 97737  | .3770 38131  | .4810 40222  | .7870 31096  |
| .1843  | .9262 35436  | .3769 45509  | .4812 18933  | .7871 79209  |
| .1844  | .9262 73126  | .3768 52884  | .4813 97658  | .7873 27340  |
| 1.1845 | 0.9263 10807 | 0.3767 60254 | 1.4815 76398 | 1.7874 75489 |
| .1846  | .9263 48478  | .3766 67622  | .4817 55153  | .7876 23655  |
| .1847  | .9263 86140  | .3765 74985  | .4819 33923  | .7877 71840  |
| .1848  | .9264 23793  | .3764 82344  | .4821 12707  | .7879 20042  |
| .1849  | .9264 61437  | .3763 89700  | .4822 91507  | .7880 68262  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.1850 | 0.9264 99071 | 0.3762 97052 | 1.4824 70321 | 1.7882 16500 |
| .1851  | .9265 36696  | .3762 04400  | .4826 49150  | .7883 64756  |
| .1852  | .9265 74312  | .3761 11745  | .4828 27994  | .7885 13030  |
| .1853  | .9266 11918  | .3760 19085  | .4830 06853  | .7886 61322  |
| .1854  | .9266 49516  | .3759 26422  | .4831 85726  | .7888 09632  |
| 1.1855 | 0.9266 87104 | 0.3758 33755 | 1.4833 64615 | 1.7889 57959 |
| .1856  | .9267 24682  | .3757 41085  | .4835 43518  | .7891 06305  |
| .1857  | .9267 62252  | .3756 48411  | .4837 22436  | .7892 54668  |
| .1858  | .9267 99812  | .3755 55732  | .4839 01369  | .7894 03049  |
| .1859  | .9268 37363  | .3754 63051  | .4840 80316  | .7895 51448  |
| 1.1860 | 0.9268 74905 | 0.3753 70365 | 1.4842 59279 | 1.7896 99865 |
| .1861  | .9269 12437  | .3752 77676  | .4844 38256  | .7898 48300  |
| .1862  | .9269 49960  | .3751 84982  | .4846 17249  | .7899 96753  |
| .1863  | .9269 87474  | .3750 92256  | .4847 96256  | .7901 45223  |
| .1864  | .9270 24979  | .3749 99555  | .4849 75278  | .7902 93712  |
| 1.1865 | 0.9270 62474 | 0.3749 06881 | 1.4851 54315 | 1.7904 42219 |
| .1866  | .9270 99960  | .3748 14172  | .4853 33366  | .7905 90743  |
| .1867  | .9271 37437  | .3747 21461  | .4855 12433  | .7907 39285  |
| .1868  | .9271 74904  | .3746 28745  | .4856 91514  | .7908 87845  |
| .1869  | .9272 12363  | .3745 36026  | .4858 70610  | .7910 36424  |
| 1.1870 | 0.9272 49812 | 0.3744 43303 | 1.4860 49721 | 1.7911 85020 |
| .1871  | .9272 87251  | .3743 50576  | .4862 28847  | .7913 33633  |
| .1872  | .9273 24682  | .3742 57845  | .4864 07988  | .7914 82265  |
| .1873  | .9273 62103  | .3741 65111  | .4865 87144  | .7916 30915  |
| .1874  | .9273 99515  | .3740 72373  | .4867 66314  | .7917 79583  |
| 1.1875 | 0.9274 36917 | 0.3739 79631 | 1.4869 45500 | 1.7919 28268 |
| .1876  | .9274 74311  | .3738 86885  | .4871 24700  | .7920 76972  |
| .1877  | .9275 11695  | .3737 94136  | .4873 03915  | .7922 25693  |
| .1878  | .9275 49070  | .3737 01383  | .4874 83145  | .7923 74433  |
| .1879  | .9275 86435  | .3736 08626  | .4876 62390  | .7925 23190  |
| 1.1880 | 0.9276 23791 | 0.3735 15866 | 1.4878 41650 | 1.7926 71965 |
| .1881  | .9276 61138  | .3734 23101  | .4880 20924  | .7928 20758  |
| .1882  | .9276 98476  | .3733 30335  | .4882 00214  | .7929 69569  |
| .1883  | .9277 35804  | .3732 37562  | .4883 79518  | .7931 18398  |
| .1884  | .9277 73123  | .3731 44786  | .4885 58837  | .7932 67245  |
| 1.1885 | 0.9278 10433 | 0.3730 52007 | 1.4887 38172 | 1.7934 16110 |
| .1886  | .9278 47734  | .3729 59224  | .4889 17521  | .7935 64993  |
| .1887  | .9278 85025  | .3728 66438  | .4890 96885  | .7937 13894  |
| .1888  | .9279 22307  | .3727 73647  | .4892 76263  | .7938 62812  |
| .1889  | .9279 59580  | .3726 80853  | .4894 55657  | .7940 11749  |
| 1.1890 | 0.9279 96843 | 0.3725 88055 | 1.4896 35066 | 1.7941 60703 |
| .1891  | .9280 34097  | .3724 95254  | .4898 14489  | .7943 09676  |
| .1892  | .9280 71342  | .3724 02448  | .4899 93928  | .7944 58666  |
| .1893  | .9281 08578  | .3723 09639  | .4901 73381  | .7946 07675  |
| .1894  | .9281 45804  | .3722 16827  | .4903 52849  | .7947 56701  |
| 1.1895 | 0.9281 83021 | 0.3721 24010 | 1.4905 32332 | 1.7949 05745 |
| .1896  | .9282 20229  | .3720 31190  | .4907 11830  | .7950 54807  |
| .1897  | .9282 57428  | .3719 38366  | .4908 91343  | .7952 03888  |
| .1898  | .9282 94617  | .3718 45539  | .4910 70871  | .7953 52986  |
| .1899  | .9283 31797  | .3717 52707  | .4912 50414  | .7955 02102  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.1900 | 0.9283 68967 | 0.3716 59872 | 1.4914 29972 | 1.7956 51236 |
| .1901  | .9284 06129  | .3715 67034  | .4916 09544  | .7958 00388  |
| .1902  | .9284 43281  | .3714 74191  | .4917 89132  | .7959 49558  |
| .1903  | .9284 80423  | .3713 81345  | .4919 68734  | .7960 98746  |
| .1904  | .9285 17557  | .3712 88495  | .4921 48351  | .7962 47951  |
| 1.1905 | 0.9285 54681 | 0.3711 95641 | 1.4923 27984 | 1.7963 97175 |
| .1906  | .9285 91796  | .3711 02784  | .4925 07631  | .7965 46417  |
| .1907  | .9286 28902  | .3710 09923  | .4926 87293  | .7966 95677  |
| .1908  | .9286 65998  | .3709 17058  | .4928 66970  | .7968 44954  |
| .1909  | .9287 03085  | .3708 24190  | .4930 46662  | .7969 94250  |
| 1.1910 | 0.9287 40163 | 0.3707 31318 | 1.4932 26369 | 1.7971 43564 |
| .1911  | .9287 77231  | .3706 38442  | .4934 06091  | .7972 92895  |
| .1912  | .9288 14291  | .3705 45562  | .4935 85827  | .7974 42245  |
| .1913  | .9288 51340  | .3704 52679  | .4937 65579  | .7975 91613  |
| .1914  | .9288 88381  | .3703 59792  | .4939 45346  | .7977 40998  |
| 1.1915 | 0.9289 25412 | 0.3702 66901 | 1.4941 25127 | 1.7978 90402 |
| .1916  | .9289 62434  | .3701 74007  | .4943 04924  | .7980 39823  |
| .1917  | .9289 99447  | .3700 81109  | .4944 84735  | .7981 89263  |
| .1918  | .9290 36451  | .3699 88207  | .4946 64562  | .7983 38720  |
| .1919  | .9290 73445  | .3698 95301  | .4948 44403  | .7984 88196  |
| 1.1920 | 0.9291 10430 | 0.3698 02392 | 1.4950 24259 | 1.7986 37689 |
| .1921  | .9291 47405  | .3697 09479  | .4952 04131  | .7987 87200  |
| .1922  | .9291 84372  | .3696 16563  | .4953 84017  | .7989 36730  |
| .1923  | .9292 21329  | .3695 23642  | .4955 63916  | .7990 86277  |
| .1924  | .9292 58276  | .3694 30718  | .4957 43854  | .7992 35843  |
| 1.1925 | 0.9292 95215 | 0.3693 37791 | 1.4959 23765 | 1.7993 85426 |
| .1926  | .9293 32144  | .3692 44859  | .4961 03711  | .7995 35027  |
| .1927  | .9293 69064  | .3691 51924  | .4962 83672  | .7996 84647  |
| .1928  | .9294 05974  | .3690 58986  | .4964 63648  | .7998 34284  |
| .1929  | .9294 42876  | .3689 66043  | .4966 43639  | .7999 83939  |
| 1.1930 | 0.9294 79768 | 0.3688 73097 | 1.4968 23645 | 1.8001 33613 |
| .1931  | .9295 16650  | .3687 80147  | .4970 03666  | .8002 83304  |
| .1932  | .9295 53524  | .3686 87194  | .4971 83702  | .8004 33014  |
| .1933  | .9295 90388  | .3685 94237  | .4973 63752  | .8005 82741  |
| .1934  | .9296 27242  | .3685 01276  | .4975 43818  | .8007 32486  |
| 1.1935 | 0.9296 64088 | 0.3684 08311 | 1.4977 23899 | 1.8008 82250 |
| .1936  | .9297 00924  | .3683 15343  | .4979 03995  | .8010 32031  |
| .1937  | .9297 37751  | .3682 22371  | .4980 84105  | .8011 81830  |
| .1938  | .9297 74569  | .3681 29395  | .4982 64231  | .8013 31648  |
| .1939  | .9298 11377  | .3680 36416  | .4984 44372  | .8014 81483  |
| 1.1940 | 0.9298 48176 | 0.3679 43433 | 1.4986 24527 | 1.8016 31337 |
| .1941  | .9298 84966  | .3678 50446  | .4988 04698  | .8017 81208  |
| .1942  | .9299 21746  | .3677 57456  | .4989 84883  | .8019 31098  |
| .1943  | .9299 58517  | .3676 64462  | .4991 65084  | .8020 81005  |
| .1944  | .9299 95279  | .3675 71464  | .4993 45300  | .8022 30931  |
| 1.1945 | 0.9300 32031 | 0.3674 78463 | 1.4995 25530 | 1.8023 80874 |
| .1946  | .9300 68775  | .3673 85458  | .4997 05776  | .8025 30836  |
| .1947  | .9301 05508  | .3672 92449  | .4998 86036  | .8026 80815  |
| .1948  | .9301 42233  | .3671 99437  | .5000 66312  | .8028 30813  |
| .1949  | .9301 78948  | .3671 06421  | .5002 46603  | .8029 80829  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 1.1950 | 0.9302 15654 | 0.3670 13401 | 1.5004 26908 | 1.8031 30862 |
| .1951  | .9302 52351  | .3669 20378  | .5006 07229  | .8032 80914  |
| .1952  | .9302 89038  | .3668 27351  | .5007 87564  | .8034 30984  |
| .1953  | .9303 25716  | .3667 34320  | .5009 67915  | .8035 81072  |
| .1954  | .9303 62385  | .3666 41285  | .5011 48281  | .8037 31177  |
| 1.1955 | 0.9303 99045 | 0.3665 48247 | 1.5013 28661 | 1.8038 81301 |
| .1956  | .9304 35695  | .3664 55206  | .5015 09057  | .8040 31443  |
| .1957  | .9304 72336  | .3663 62160  | .5016 89467  | .8041 81603  |
| .1958  | .9305 08967  | .3662 69111  | .5018 69893  | .8043 31781  |
| .1959  | .9305 45590  | .3661 76058  | .5020 50334  | .8044 81977  |
| 1.1960 | 0.9305 82203 | 0.3660 83002 | 1.5022 30790 | 1.8046 32191 |
| .1961  | .9306 18806  | .3659 89942  | .5024 11260  | .8047 82423  |
| .1962  | .9306 55400  | .3658 96878  | .5025 91746  | .8049 32673  |
| .1963  | .9306 91986  | .3658 03811  | .5027 72247  | .8050 82942  |
| .1964  | .9307 28561  | .3657 10740  | .5029 52763  | .8052 33228  |
| 1.1965 | 0.9307 65128 | 0.3656 17665 | 1.5031 33293 | 1.8053 83532 |
| .1966  | .9308 01685  | .3655 24587  | .5033 13839  | .8055 33854  |
| .1967  | .9308 38233  | .3654 31505  | .5034 94400  | .8056 84195  |
| .1968  | .9308 74771  | .3653 38419  | .5036 74976  | .8058 34553  |
| .1969  | .9309 11300  | .3652 45330  | .5038 55567  | .8059 84930  |
| 1.1970 | 0.9309 47820 | 0.3651 52237 | 1.5040 36173 | 1.8061 35324 |
| .1971  | .9309 84331  | .3650 59140  | .5042 16794  | .8062 85737  |
| .1972  | .9310 20832  | .3649 66040  | .5043 97430  | .8064 36168  |
| .1973  | .9310 57324  | .3648 72936  | .5045 78081  | .8065 86617  |
| .1974  | .9310 93807  | .3647 79829  | .5047 58748  | .8067 37083  |
| 1.1975 | 0.9311 30280 | 0.3646 86717 | 1.5049 39429 | 1.8068 87568 |
| .1976  | .9311 66744  | .3645 93603  | .5051 20126  | .8070 38071  |
| .1977  | .9312 03199  | .3645 00484  | .5053 00836  | .8071 88592  |
| .1978  | .9312 39644  | .3644 07362  | .5054 81563  | .8073 39131  |
| .1979  | .9312 76080  | .3643 14236  | .5056 62304  | .8074 89689  |
| 1.1980 | 0.9313 12507 | 0.3642 21107 | 1.5058 43061 | 1.8076 40264 |
| .1981  | .9313 48924  | .3641 27974  | .5060 23832  | .8077 90857  |
| .1982  | .9313 85332  | .3640 34837  | .5062 04619  | .8079 41469  |
| .1983  | .9314 21731  | .3639 41697  | .5063 85421  | .8080 92098  |
| .1984  | .9314 58121  | .3638 48553  | .5065 66237  | .8082 42746  |
| 1.1985 | 0.9314 94501 | 0.3637 55405 | 1.5067 47069 | 1.8083 93411 |
| .1986  | .9315 30872  | .3636 62254  | .5069 27916  | .8085 44095  |
| .1987  | .9315 67233  | .3635 69099  | .5071 08778  | .8086 94797  |
| .1988  | .9316 03586  | .3634 75940  | .5072 89655  | .8088 45517  |
| .1989  | .9316 39929  | .3633 82778  | .5074 70547  | .8089 96255  |
| 1.1990 | 0.9316 76262 | 0.3632 89612 | 1.5076 51454 | 1.8091 47011 |
| .1991  | .9317 12587  | .3631 96443  | .5078 32377  | .8092 97785  |
| .1992  | .9317 48902  | .3631 03270  | .5080 13314  | .8094 48578  |
| .1993  | .9317 85207  | .3630 10093  | .5081 94266  | .8095 99388  |
| .1994  | .9318 21504  | .3629 16913  | .5083 75234  | .8097 50216  |
| 1.1995 | 0.9318 57791 | 0.3628 23729 | 1.5085 56216 | 1.8099 01063 |
| .1996  | .9318 94068  | .3627 30541  | .5087 37214  | .8100 51928  |
| .1997  | .9319 30337  | .3626 37350  | .5089 18227  | .8102 02810  |
| .1998  | .9319 66596  | .3625 44155  | .5090 99254  | .8103 53711  |
| .1999  | .9320 02846  | .3624 50957  | .5092 80297  | .8105 04630  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.2000 | 0.9320 59036 | 0.3623 57754 | 1.8094 61355 | 1.8106 55567 |
| .2001  | .9320 75317  | .3622 64549  | .5098 42429  | .8108 06523  |
| .2002  | .9321 11539  | .3621 71339  | .5098 23517  | .8109 57496  |
| .2003  | .9321 47751  | .3620 78126  | .5100 04620  | .8111 08487  |
| .2004  | .9321 83955  | .3619 84910  | .5101 85738  | .8112 59497  |
| 1.2005 | 0.9322 20148 | 0.3618 91690 | 1.5103 66872 | 1.8114 10524 |
| .2006  | .9322 56333  | .3617 98466  | .5105 48021  | .8115 61570  |
| .2007  | .9322 92508  | .3617 05238  | .5107 29184  | .8117 12634  |
| .2008  | .9323 28674  | .3616 12007  | .5109 10363  | .8118 63716  |
| .2009  | .9323 64830  | .3615 18773  | .5110 91557  | .8120 14816  |
| 1.2010 | 0.9324 00978 | 0.3614 25534 | 1.5112 72766 | 1.8121 65934 |
| .2011  | .9324 37116  | .3613 32292  | .5114 53990  | .8123 17071  |
| .2012  | .9324 73244  | .3612 39047  | .5116 35229  | .8124 68225  |
| .2013  | .9325 09363  | .3611 45798  | .5118 16484  | .8126 19398  |
| .2014  | .9325 45473  | .3610 52545  | .5119 97753  | .8127 70688  |
| 1.2015 | 0.9325 81574 | 0.3609 59289 | 1.5121 79038 | 1.8129 21797 |
| .2016  | .9326 17665  | .3608 66029  | .5123 60338  | .8130 73024  |
| .2017  | .9326 53747  | .3607 72765  | .5125 41653  | .8132 24269  |
| .2018  | .9326 89820  | .3606 79498  | .5127 22983  | .8133 75532  |
| .2019  | .9327 25882  | .3605 86227  | .5129 04328  | .8135 26814  |
| 1.2020 | 0.9327 61937 | 0.3604 92953 | 1.5130 85638 | 1.8136 78113 |
| .2021  | .9327 97982  | .3603 99675  | .5132 67063  | .8138 29431  |
| .2022  | .9328 34017  | .3603 06393  | .5134 48454  | .8139 80767  |
| .2023  | .9328 70043  | .3602 13108  | .5136 29859  | .8141 32121  |
| .2024  | .9329 06059  | .3601 19819  | .5138 11280  | .8142 83493  |
| 1.2025 | 0.9329 42067 | 0.3600 26527 | 1.5139 92716 | 1.8144 34883 |
| .2026  | .9329 78065  | .3599 33231  | .5141 74167  | .8145 86231  |
| .2027  | .9330 14053  | .3598 39931  | .5143 55633  | .8147 37718  |
| .2028  | .9330 50033  | .3597 46628  | .5145 37115  | .8148 89162  |
| .2029  | .9330 86003  | .3596 53321  | .5147 18611  | .8150 40625  |
| 1.2030 | 0.9331 21963 | 0.3595 60011 | 1.5149 00123 | 1.8151 92106 |
| .2031  | .9331 57915  | .3594 66697  | .5150 81650  | .8153 43605  |
| .2032  | .9331 93857  | .3593 73379  | .5152 63192  | .8154 95122  |
| .2033  | .9332 29789  | .3592 80058  | .5154 44749  | .8156 46658  |
| .2034  | .9332 65713  | .3591 86733  | .5156 26321  | .8157 98211  |
| 1.2035 | 0.9333 01627 | 0.3590 93405 | 1.5158 07908 | 1.8159 49783 |
| .2036  | .9333 37531  | .3590 00073  | .5159 89511  | .8161 01373  |
| .2037  | .9333 73427  | .3589 06737  | .5161 71129  | .8162 52981  |
| .2038  | .9334 09313  | .3588 13398  | .5163 52761  | .8164 04607  |
| .2039  | .9334 45189  | .3587 20056  | .5165 34409  | .8165 56252  |
| 1.2040 | 0.9334 81057 | 0.3586 26709 | 1.5167 16073 | 1.8167 07914 |
| .2041  | .9335 16915  | .3585 33359  | .5168 97751  | .8168 59595  |
| .2042  | .9335 52763  | .3584 40006  | .5170 79445  | .8170 11294  |
| .2043  | .9335 88603  | .3583 46649  | .5172 61153  | .8171 63011  |
| .2044  | .9336 24433  | .3582 53288  | .5174 42877  | .8173 14746  |
| 1.2045 | 0.9336 60253 | 0.3581 59924 | 1.5176 24616 | 1.8174 66499 |
| .2046  | .9336 96065  | .3580 66556  | .5178 06371  | .8176 18271  |
| .2047  | .9337 31867  | .3579 73185  | .5179 88140  | .8177 70061  |
| .2048  | .9337 67659  | .3578 79810  | .5181 69925  | .8179 21868  |
| .2049  | .9338 03443  | .3577 86431  | .5183 51724  | .8180 73695  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.2050 | 0.9338 39217 | 0.3576 93049 | 1.5185 33539 | 1.8182 25539 |
| .2051  | .9338 74981  | .3575 99663  | .5187 15369  | .8183 77401  |
| .2052  | .9339 10737  | .3575 06274  | .5188 97215  | .8185 29282  |
| .2053  | .9339 46483  | .3574 12881  | .5190 79075  | .8186 81181  |
| .2054  | .9339 82219  | .3573 19485  | .5192 60951  | .8188 33098  |
| 1.2055 | 0.9340 17947 | 0.3572 26085 | 1.5194 42842 | 1.8189 85033 |
| .2056  | .9340 53664  | .3571 32681  | .5196 24748  | .8191 36986  |
| .2057  | .9340 89373  | .3570 39274  | .5198 06669  | .8192 88958  |
| .2058  | .9341 25072  | .3569 45863  | .5199 88606  | .8194 40948  |
| .2059  | .9341 60762  | .3568 52449  | .5201 70557  | .8195 92956  |
| 1.2060 | 0.9341 96443 | 0.3567 59031 | 1.5203 52524 | 1.8197 44982 |
| .2061  | .9342 32114  | .3566 65610  | .5205 34506  | .8198 97026  |
| .2062  | .9342 67776  | .3565 72185  | .5207 16504  | .8200 49089  |
| .2063  | .9343 03428  | .3564 78756  | .5208 98516  | .8202 01169  |
| .2064  | .9343 39072  | .3563 85324  | .5210 80544  | .8203 53268  |
| 1.2065 | 0.9343 74706 | 0.3562 91888 | 1.5212 62587 | 1.8205 05385 |
| .2066  | .9344 10330  | .3561 98449  | .5214 44645  | .8206 57521  |
| .2067  | .9344 45945  | .3561 05006  | .5216 26718  | .8208 09674  |
| .2068  | .9344 81551  | .3560 11560  | .5218 08807  | .8209 61846  |
| .2069  | .9345 17148  | .3559 18110  | .5219 90911  | .8211 14036  |
| 1.2070 | 0.9345 52735 | 0.3558 24656 | 1.5221 73030 | 1.8212 66244 |
| .2071  | .9345 88312  | .3557 31199  | .5223 55164  | .8214 18471  |
| .2072  | .9346 23881  | .3556 37739  | .5225 37314  | .8215 70715  |
| .2073  | .9346 59440  | .3555 44275  | .5227 19478  | .8217 22978  |
| .2074  | .9346 94990  | .3554 50807  | .5229 01658  | .8218 75259  |
| 1.2075 | 0.9347 30530 | 0.3553 57336 | 1.5230 83853 | 1.8220 27559 |
| .2076  | .9347 66061  | .3552 63861  | .5232 66064  | .8221 79876  |
| .2077  | .9348 01583  | .3551 70382  | .5234 48289  | .8223 32212  |
| .2078  | .9348 37095  | .3550 76900  | .5236 30530  | .8224 84566  |
| .2079  | .9348 72598  | .3549 83415  | .5238 12786  | .8226 36938  |
| 1.2080 | 0.9349 08092 | 0.3548 89926 | 1.5239 95057 | 1.8227 89328 |
| .2081  | .9349 43576  | .3547 96433  | .5241 77344  | .8229 41737  |
| .2082  | .9349 79051  | .3547 02937  | .5243 59646  | .8230 94164  |
| .2083  | .9350 14517  | .3546 09438  | .5245 41963  | .8232 46609  |
| .2084  | .9350 49973  | .3545 15934  | .5247 24295  | .8233 99072  |
| 1.2085 | 0.9350 85420 | 0.3544 22428 | 1.5249 06643 | 1.8235 51554 |
| .2086  | .9351 20858  | .3543 28917  | .5250 89005  | .8237 04053  |
| .2087  | .9351 56286  | .3542 35403  | .5252 71383  | .8238 56571  |
| .2088  | .9351 91705  | .3541 41886  | .5254 53777  | .8240 09108  |
| .2089  | .9352 27114  | .3540 48365  | .5256 36185  | .8241 61662  |
| 1.2090 | 0.9352 62514 | 0.3539 54841 | 1.5258 18609 | 1.8243 14235 |
| .2091  | .9352 97905  | .3538 61313  | .5260 01048  | .8244 66826  |
| .2092  | .9353 33287  | .3537 67781  | .5261 83502  | .8246 19435  |
| .2093  | .9353 68659  | .3536 74246  | .5263 65972  | .8247 72063  |
| .2094  | .9354 04022  | .3535 80707  | .5265 48457  | .8249 24708  |
| 1.2095 | 0.9354 39375 | 0.3534 87165 | 1.5267 30957 | 1.8250 77372 |
| .2096  | .9354 74719  | .3533 93619  | .5269 13472  | .8252 30055  |
| .2097  | .9355 10054  | .3533 00070  | .5270 96003  | .8253 82755  |
| .2098  | .9355 45379  | .3532 06517  | .5272 78549  | .8255 35474  |
| .2099  | .9355 80695  | .3531 12961  | .5274 61110  | .8256 88211  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.2100 | 0.9356 16002 | 0.3530 19401 | 1.5276 43687 | 1.8258 40966 |
| .2101  | .9356 51299  | .3529 25838  | .5278 26278  | .8259 93739  |
| .2102  | .9356 86587  | .3528 32271  | .5280 08885  | .8261 46531  |
| .2103  | .9357 21865  | .3527 38701  | .5281 91508  | .8262 99341  |
| .2104  | .9357 57134  | .3526 45127  | .5283 74145  | .8264 52170  |
| 1.2105 | 0.9357 92394 | 0.3525 51549 | 1.5285 56798 | 1.8266 05016 |
| .2106  | .9358 27645  | .3524 57968  | .5287 39466  | .8267 57881  |
| .2107  | .9358 62886  | .3523 64384  | .5289 22150  | .8269 10764  |
| .2108  | .9358 98118  | .3522 70796  | .5291 04848  | .8270 63665  |
| .2109  | .9359 33340  | .3521 77204  | .5292 87562  | .8272 16585  |
| 1.2110 | 0.9359 68553 | 0.3520 83609 | 1.5294 70292 | 1.8273 69523 |
| .2111  | .9360 03757  | .3519 90010  | .5296 53036  | .8275 22479  |
| .2112  | .9360 38951  | .3518 96408  | .5298 35796  | .8276 75453  |
| .2113  | .9360 74136  | .3518 02802  | .5300 18571  | .8278 28446  |
| .2114  | .9361 09312  | .3517 09193  | .5302 01362  | .8279 81457  |
| 1.2115 | 0.9361 44478 | 0.3516 15581 | 1.5303 84168 | 1.8281 34486 |
| .2116  | .9361 79635  | .3515 21964  | .5305 66989  | .8282 87534  |
| .2117  | .9362 14782  | .3514 28345  | .5307 49825  | .8284 40600  |
| .2118  | .9362 49920  | .3513 34721  | .5309 32677  | .8285 93684  |
| .2119  | .9362 85049  | .3512 41095  | .5311 15544  | .8287 46786  |
| 1.2120 | 0.9363 20169 | 0.3511 47464 | 1.5312 98426 | 1.8288 99907 |
| .2121  | .9363 55279  | .3510 53831  | .5314 81324  | .8290 53046  |
| .2122  | .9363 90379  | .3509 60193  | .5316 64237  | .8292 06203  |
| .2123  | .9364 25471  | .3508 66553  | .5318 47165  | .8293 59379  |
| .2124  | .9364 60553  | .3507 72908  | .5320 30109  | .8295 12573  |
| 1.2125 | 0.9364 95625 | 0.3506 79260 | 1.5322 13068 | 1.8296 65785 |
| .2126  | .9365 30689  | .3505 85609  | .5323 96042  | .8298 19015  |
| .2127  | .9365 65742  | .3504 91954  | .5325 79031  | .8299 72264  |
| .2128  | .9366 00787  | .3503 98296  | .5327 62036  | .8301 25531  |
| .2129  | .9366 35822  | .3503 04634  | .5329 45057  | .8302 78817  |
| 1.2130 | 0.9366 70848 | 0.3502 10969 | 1.5331 28092 | 1.8304 32120 |
| .2131  | .9367 05864  | .3501 17300  | .5333 11143  | .8305 85442  |
| .2132  | .9367 40871  | .3500 23628  | .5334 94209  | .8307 38782  |
| .2133  | .9367 75869  | .3499 29952  | .5336 77291  | .8308 92141  |
| .2134  | .9368 10857  | .3498 36272  | .5338 60388  | .8310 45518  |
| 1.2135 | 0.9368 45836 | 0.3497 42590 | 1.5340 43500 | 1.8311 98913 |
| .2136  | .9368 80806  | .3496 48903  | .5342 26627  | .8313 52327  |
| .2137  | .9369 15766  | .3495 55213  | .5344 09770  | .8315 05758  |
| .2138  | .9369 50717  | .3494 61520  | .5345 92929  | .8316 59209  |
| .2139  | .9369 85658  | .3493 67823  | .5347 76102  | .8318 12577  |
| 1.2140 | 0.9370 20590 | 0.3492 74123 | 1.5349 59291 | 1.8319 66164 |
| .2141  | .9370 55513  | .3491 80419  | .5351 42495  | .8321 19689  |
| .2142  | .9370 90427  | .3490 86712  | .5353 25715  | .8322 73192  |
| .2143  | .9371 25331  | .3489 93001  | .5355 08950  | .8324 26734  |
| .2144  | .9371 60225  | .3488 99287  | .5356 92200  | .8325 80294  |
| 1.2145 | 0.9371 95110 | 0.3488 05569 | 1.5358 75466 | 1.8327 33872 |
| .2146  | .9372 29986  | .3487 11848  | .5360 58747  | .8328 87469  |
| .2147  | .9372 64853  | .3486 18123  | .5362 42044  | .8330 41084  |
| .2148  | .9372 99710  | .3485 24395  | .5364 25355  | .8331 94718  |
| .2149  | .9373 34558  | .3484 30663  | .5366 08682  | .8333 48369  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 1.2150 | 0.9373 69396 | 0.3483 36928 | 1.5367 92025 | 1.8335 02039 |
| .2151  | .9374 04225  | .3482 43189  | .5369 75383  | .8336 55728  |
| .2152  | .9374 39045  | .3481 49447  | .5371 58756  | .8338 09434  |
| .2153  | .9374 73855  | .3480 55701  | .5373 42145  | .8339 63159  |
| .2154  | .9375 08656  | .3479 61952  | .5375 25549  | .8341 16903  |
| 1.2155 | 0.9375 43447 | 0.3478 68200 | 1.5377 08968 | 1.8342 70665 |
| .2156  | .9375 78229  | .3477 74444  | .5378 92403  | .8344 24445  |
| .2157  | .9376 13002  | .3476 80684  | .5380 75853  | .8345 78243  |
| .2158  | .9376 47766  | .3475 86921  | .5382 59319  | .8347 32060  |
| .2159  | .9376 82520  | .3474 93155  | .5384 42799  | .8348 85895  |
| 1.2160 | 0.9377 17264 | 0.3473 99385 | 1.5386 26296 | 1.8350 39748 |
| .2161  | .9377 51999  | .3473 05611  | .5388 09807  | .8351 93620  |
| .2162  | .9377 86725  | .3472 11834  | .5389 93334  | .8353 47510  |
| .2163  | .9378 21442  | .3471 18054  | .5391 76877  | .8355 01419  |
| .2164  | .9378 56145  | .3470 24270  | .5393 60435  | .8356 55346  |
| 1.2165 | 0.9378 90847 | 0.3469 30483 | 1.5395 44008 | 1.8358 09291 |
| .2166  | .9379 25535  | .3468 36692  | .5397 27597  | .8359 63254  |
| .2167  | .9379 60214  | .3467 42897  | .5399 11201  | .8361 17236  |
| .2168  | .9379 94884  | .3466 49100  | .5400 94820  | .8362 71237  |
| .2169  | .9380 29544  | .3465 55298  | .5402 78455  | .8364 25255  |
| 1.2170 | 0.9380 64195 | 0.3464 61494 | 1.5404 62105 | 1.8365 79292 |
| .2171  | .9380 98836  | .3463 67686  | .5406 45771  | .8367 33348  |
| .2172  | .9381 33468  | .3462 73874  | .5408 29452  | .8368 87422  |
| .2173  | .9381 68091  | .3461 80059  | .5410 13148  | .8370 41514  |
| .2174  | .9382 02704  | .3460 86240  | .5411 96860  | .8371 95624  |
| 1.2175 | 0.9382 37308 | 0.3459 92418 | 1.5413 80587 | 1.8373 49753 |
| .2176  | .9382 71903  | .3458 98593  | .5415 64330  | .8375 03900  |
| .2177  | .9383 06488  | .3458 04764  | .5417 48088  | .8376 58066  |
| .2178  | .9383 41064  | .3457 10932  | .5419 31862  | .8378 12250  |
| .2179  | .9383 75630  | .3456 17096  | .5421 15651  | .8379 66452  |
| 1.2180 | 0.9384 10187 | 0.3455 23256 | 1.5422 99455 | 1.8381 20673 |
| .2181  | .9384 44735  | .3454 29414  | .5424 83275  | .8382 74912  |
| .2182  | .9384 79273  | .3453 35568  | .5426 67110  | .8384 29170  |
| .2183  | .9385 13802  | .3452 41718  | .5428 50961  | .8385 83446  |
| .2184  | .9385 48321  | .3451 47865  | .5430 34827  | .8387 37740  |
| 1.2185 | 0.9385 82831 | 0.3450 54008 | 1.5432 18708 | 1.8388 92053 |
| .2186  | .9386 17332  | .3449 60148  | .5434 02605  | .8390 46384  |
| .2187  | .9386 51823  | .3448 66285  | .5435 86517  | .8392 00733  |
| .2188  | .9386 86305  | .3447 72418  | .5437 70445  | .8393 55101  |
| .2189  | .9387 20778  | .3446 78547  | .5439 54388  | .8395 09487  |
| 1.2190 | 0.9387 55241 | 0.3445 84674 | 1.5441 38347 | 1.8396 63892 |
| .2191  | .9387 89695  | .3444 90796  | .5443 22321  | .8398 18315  |
| .2192  | .9388 24139  | .3443 96916  | .5445 06311  | .8399 72756  |
| .2193  | .9388 58574  | .3443 03032  | .5446 90316  | .8401 27216  |
| .2194  | .9388 93000  | .3442 09144  | .5448 74336  | .8402 81694  |
| 1.2195 | 0.9389 27416 | 0.3441 15253 | 1.5450 58372 | 1.8404 36191 |
| .2196  | .9389 61823  | .3440 21359  | .5452 42423  | .8405 90706  |
| .2197  | .9389 96220  | .3439 27461  | .5454 26490  | .8407 45239  |
| .2198  | .9390 30608  | .3438 33559  | .5456 10572  | .8408 99791  |
| .2199  | .9390 64987  | .3437 39655  | .5457 94670  | .8410 54362  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 1.2200 | 0.9390 99356 | 0.3436 45746 | 1.5459 78783 | 1.8412 08950 |
| .2201  | .9391 33716  | .3435 51835  | .5461 62912  | .8413 63557  |
| .2202  | .9391 68067  | .3434 57920  | .5463 47056  | .8415 18183  |
| .2203  | .9392 02408  | .3433 64001  | .5465 31216  | .8416 72827  |
| .2204  | .9392 36739  | .3432 70079  | .5467 15391  | .8418 27489  |
| 1.2205 | 0.9392 71062 | 0.3431 76154 | 1.5468 99581 | 1.8419 82170 |
| .2206  | .9393 05375  | .3430 82225  | .5470 83787  | .8421 36869  |
| .2207  | .9393 39678  | .3429 88293  | .5472 68008  | .8422 91587  |
| .2208  | .9393 73972  | .3428 94357  | .5474 52245  | .8424 46323  |
| .2209  | .9394 08257  | .3428 00418  | .5476 36498  | .8426 01077  |
| 1.2210 | 0.9394 42532 | 0.3427 06475 | 1.5478 20766 | 1.8427 55850 |
| .2211  | .9394 76798  | .3426 12529  | .5480 05049  | .8429 10641  |
| .2212  | .9395 11055  | .3425 18580  | .5481 89348  | .8430 65451  |
| .2213  | .9395 45302  | .3424 24627  | .5483 73662  | .8432 20279  |
| .2214  | .9395 79540  | .3423 30671  | .5485 57992  | .8433 75126  |
| 1.2215 | 0.9396 13768 | 0.3422 36711 | 1.5487 42337 | 1.8435 29991 |
| .2216  | .9396 47987  | .3421 42748  | .5489 26698  | .8436 84874  |
| .2217  | .9396 82197  | .3420 48782  | .5491 11074  | .8438 39776  |
| .2218  | .9397 16397  | .3419 54812  | .5492 95466  | .8439 94696  |
| .2219  | .9397 50588  | .3418 60838  | .5494 79873  | .8441 49635  |
| 1.2220 | 0.9397 84769 | 0.3417 66862 | 1.5496 64296 | 1.8443 04592 |
| .2221  | .9398 18941  | .3416 72881  | .5498 48734  | .8444 59568  |
| .2222  | .9398 53104  | .3415 78898  | .5500 33188  | .8446 14562  |
| .2223  | .9398 87257  | .3414 84911  | .5502 17657  | .8447 69575  |
| .2224  | .9399 21401  | .3413 90920  | .5504 02141  | .8449 24606  |
| 1.2225 | 0.9399 55535 | 0.3412 96926 | 1.5505 86642 | 1.8450 79655 |
| .2226  | .9399 89660  | .3412 02929  | .5507 71157  | .8452 34723  |
| .2227  | .9400 23776  | .3411 08929  | .5509 55689  | .8453 89809  |
| .2228  | .9400 57882  | .3410 14924  | .5511 40235  | .8455 44914  |
| .2229  | .9400 91979  | .3409 20917  | .5513 24798  | .8457 00037  |
| 1.2230 | 0.9401 26066 | 0.3408 26906 | 1.5515 09375 | 1.8458 55179 |
| .2231  | .9401 60144  | .3407 32892  | .5516 93969  | .8460 10339  |
| .2232  | .9401 94213  | .3406 38874  | .5518 78577  | .8461 65518  |
| .2233  | .9402 28272  | .3405 44853  | .5520 63202  | .8463 20715  |
| .2234  | .9402 62322  | .3404 50828  | .5522 47842  | .8464 75930  |
| 1.2235 | 0.9402 96362 | 0.3403 56800 | 1.5524 32497 | 1.8466 31164 |
| .2236  | .9403 30393  | .3402 62769  | .5526 17168  | .8467 86417  |
| .2237  | .9403 64415  | .3401 68734  | .5528 01854  | .8469 41688  |
| .2238  | .9403 98427  | .3400 74696  | .5529 86556  | .8470 96977  |
| .2239  | .9404 32429  | .3399 80655  | .5531 71274  | .8472 52285  |
| 1.2240 | 0.9404 66423 | 0.3398 86610 | 1.5533 56007 | 1.8474 07612 |
| .2241  | .9405 00407  | .3397 92561  | .5535 40755  | .8475 62956  |
| .2242  | .9405 34381  | .3396 98510  | .5537 25519  | .8477 18320  |
| .2243  | .9405 68347  | .3396 04455  | .5539 10299  | .8478 73702  |
| .2244  | .9406 02302  | .3395 10396  | .5540 95094  | .8480 29102  |
| 1.2245 | 0.9406 36249 | 0.3394 16334 | 1.5542 79905 | 1.8481 84521 |
| .2246  | .9406 70186  | .3393 22269  | .5544 64731  | .8483 39958  |
| .2247  | .9407 04113  | .3392 28200  | .5546 49573  | .8484 95413  |
| .2248  | .9407 38031  | .3391 34128  | .5548 34430  | .8486 50888  |
| .2249  | .9407 71940  | .3390 40052  | .5550 19303  | .8488 06380  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.2250 | 0.9408 05839 | 0.3389 45974 | 1.5552 04191 | 1.8489 61892 |
| .2251  | .9408 39729  | .3388 51891  | .5553 89095  | .8491 17421  |
| .2252  | .9408 73610  | .3387 57806  | .5555 74015  | .8492 72969  |
| .2253  | .9409 07481  | .3386 63717  | .5557 58950  | .8494 28536  |
| .2254  | .9409 41342  | .3385 69624  | .5559 43900  | .8495 84121  |
| 1.2255 | 0.9409 75195 | 0.3384 75528 | 1.5561 28867 | 1.8497 39725 |
| .2256  | .9410 09037  | .3383 81429  | .5563 13848  | .8498 95347  |
| .2257  | .9410 42871  | .3382 87326  | .5564 98846  | .8500 50988  |
| .2258  | .9410 76695  | .3381 93220  | .5566 83859  | .8502 06647  |
| .2259  | .9411 10509  | .3380 99111  | .5568 68887  | .8503 62324  |
| 1.2260 | 0.9411 44315 | 0.3380 04998 | 1.5570 53931 | 1.8505 18020 |
| .2261  | .9411 78110  | .3379 10882  | .5572 38991  | .8506 73735  |
| .2262  | .9412 11897  | .3378 16763  | .5574 24066  | .8508 29468  |
| .2263  | .9412 45674  | .3377 22640  | .5576 09157  | .8509 85220  |
| .2264  | .9412 79441  | .3376 28514  | .5577 94263  | .8511 40990  |
| 1.2265 | 0.9413 13200 | 0.3375 34384 | 1.5579 79385 | 1.8512 96779 |
| .2266  | .9413 46948  | .3374 40251  | .5581 64522  | .8514 52586  |
| .2267  | .9413 80688  | .3373 46115  | .5583 49675  | .8516 08412  |
| .2268  | .9414 14417  | .3372 51975  | .5585 34844  | .8517 64256  |
| .2269  | .9414 48138  | .3371 57832  | .5587 20028  | .8519 20119  |
| 1.2270 | 0.9414 81849 | 0.3370 63685 | 1.5589 05228 | 1.8520 76000 |
| .2271  | .9415 15551  | .3369 69535  | .5590 90443  | .8522 31900  |
| .2272  | .9415 49243  | .3368 75382  | .5592 75674  | .8523 87818  |
| .2273  | .9415 82926  | .3367 81226  | .5594 60921  | .8525 43755  |
| .2274  | .9416 16599  | .3366 87066  | .5596 46183  | .8526 99710  |
| 1.2275 | 0.9416 50263 | 0.3365 92902 | 1.5598 31461 | 1.8528 55684 |
| .2276  | .9416 83918  | .3364 98735  | .5600 16754  | .8530 11677  |
| .2277  | .9417 17563  | .3364 04565  | .5602 02063  | .8531 67687  |
| .2278  | .9417 51199  | .3363 10392  | .5603 87388  | .8533 23717  |
| .2279  | .9417 84825  | .3362 16215  | .5605 72728  | .8534 79765  |
| 1.2280 | 0.9418 18442 | 0.3361 22035 | 1.5607 58084 | 1.8536 35831 |
| .2281  | .9418 52049  | .3360 27851  | .5609 43455  | .8537 91917  |
| .2282  | .9418 85648  | .3359 33665  | .5611 28842  | .8539 48020  |
| .2283  | .9419 19236  | .3358 39474  | .5613 14245  | .8541 04142  |
| .2284  | .9419 52815  | .3357 45281  | .5614 99663  | .8542 60283  |
| 1.2285 | 0.9419 86385 | 0.3356 51084 | 1.5616 85097 | 1.8544 16442 |
| .2286  | .9420 19946  | .3355 56883  | .5618 70546  | .8545 72620  |
| .2287  | .9420 53497  | .3354 62680  | .5620 56011  | .8547 28816  |
| .2288  | .9420 87038  | .3353 68473  | .5622 41492  | .8548 85031  |
| .2289  | .9421 20570  | .3352 74262  | .5624 26988  | .8550 41265  |
| 1.2290 | 0.9421 54093 | 0.3351 80049 | 1.5626 12500 | 1.8551 97517 |
| .2291  | .9421 87606  | .3350 85832  | .5627 98028  | .8553 53787  |
| .2292  | .9422 21110  | .3349 91611  | .5629 83571  | .8555 10076  |
| .2293  | .9422 54605  | .3348 97387  | .5631 69130  | .8556 66384  |
| .2294  | .9422 88090  | .3348 03160  | .5633 54704  | .8558 22710  |
| 1.2295 | 0.9423 21565 | 0.3347 08930 | 1.5635 40294 | 1.8559 79055 |
| .2296  | .9423 55031  | .3346 14696  | .5637 25900  | .8561 35418  |
| .2297  | .9423 88488  | .3345 20459  | .5639 11521  | .8562 91800  |
| .2298  | .9424 21936  | .3344 26218  | .5640 97158  | .8564 48200  |
| .2299  | .9424 55373  | .3343 31974  | .5642 82811  | .8566 04619  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.2300 | 0.9424 88802 | 0.3342 37727 | 1.5644 68479 | 1.8567 61057 |
| .2301  | .9425 22221  | .3341 43477  | .5646 54183  | .8569 17513  |
| .2302  | .9425 55631  | .3340 49223  | .5648 32863  | .8570 73988  |
| .2303  | .9425 89031  | .3339 54965  | .5650 25578  | .8572 30481  |
| .2304  | .9426 22422  | .3338 60705  | .5652 11309  | .8573 86993  |
| 1.2305 | 0.9426 55803 | 0.3337 66441 | 1.5653 97055 | 1.8575 43523 |
| .2306  | .9426 89175  | .3336 72174  | .5655 82818  | .8577 00072  |
| .2307  | .9427 22537  | .3335 77903  | .5657 68595  | .8578 56640  |
| .2308  | .9427 55890  | .3334 83629  | .5659 54389  | .8580 13226  |
| .2309  | .9427 89234  | .3333 89352  | .5661 40198  | .8581 69831  |
| 1.2310 | 0.9428 22568 | 0.3332 95071 | 1.5663 26023 | 1.8583 26454 |
| .2311  | .9428 55893  | .3332 00787  | .5665 11863  | .8584 83096  |
| .2312  | .9428 89209  | .3331 06500  | .5666 97720  | .8586 39756  |
| .2313  | .9429 22514  | .3330 12210  | .5668 83591  | .8587 96436  |
| .2314  | .9429 55811  | .3329 17916  | .5670 69479  | .8589 53133  |
| 1.2315 | 0.9429 89098 | 0.3328 23618 | 1.5672 55382 | 1.8591 09849 |
| .2316  | .9430 22376  | .3327 29318  | .5674 41301  | .8592 66584  |
| .2317  | .9430 55644  | .3326 35014  | .5676 27235  | .8594 23338  |
| .2318  | .9430 88903  | .3325 40707  | .5678 13185  | .8595 80110  |
| .2319  | .9431 22152  | .3324 46396  | .5679 99151  | .8597 36900  |
| 1.2320 | 0.9431 55392 | 0.3323 52082 | 1.5681 85133 | 1.8598 93710 |
| .2321  | .9431 88622  | .3322 57765  | .5683 71130  | .8600 50537  |
| .2322  | .9432 21844  | .3321 63445  | .5685 57143  | .8602 07384  |
| .2323  | .9432 55055  | .3320 69121  | .5687 43172  | .8603 64249  |
| .2324  | .9432 88257  | .3319 74794  | .5689 29216  | .8605 21132  |
| 1.2325 | 0.9433 21450 | 0.3318 80463 | 1.5691 15276 | 1.8606 78035 |
| .2326  | .9433 54633  | .3317 86129  | .5693 01351  | .8608 34955  |
| .2327  | .9433 87807  | .3316 91792  | .5694 87443  | .8609 91895  |
| .2328  | .9434 20972  | .3315 97452  | .5696 73550  | .8611 48853  |
| .2329  | .9434 54127  | .3315 03108  | .5698 59673  | .8613 05830  |
| 1.2330 | 0.9434 87272 | 0.3314 08761 | 1.5700 45811 | 1.8614 62825 |
| .2331  | .9435 20409  | .3313 14411  | .5702 31965  | .8616 19839  |
| .2332  | .9435 53535  | .3312 20057  | .5704 18135  | .8617 76871  |
| .2333  | .9435 86653  | .3311 25700  | .5706 04320  | .8619 33922  |
| .2334  | .9436 19760  | .3310 31339  | .5707 90522  | .8620 90992  |
| 1.2335 | 0.9436 52859 | 0.3309 36976 | 1.5709 76739 | 1.8622 48081 |
| .2336  | .9436 85948  | .3308 42609  | .5711 62971  | .8624 05188  |
| .2337  | .9437 19027  | .3307 48239  | .5713 49220  | .8625 62313  |
| .2338  | .9437 52097  | .3306 53865  | .5715 35484  | .8627 19457  |
| .2339  | .9437 85158  | .3305 59488  | .5717 21764  | .8628 76620  |
| 1.2340 | 0.9438 18209 | 0.3304 65108 | 1.5719 08059 | 1.8630 33802 |
| .2341  | .9438 51251  | .3303 70725  | .5720 94370  | .8631 91002  |
| .2342  | .9438 84284  | .3302 76338  | .5722 80697  | .8633 48221  |
| .2343  | .9439 17306  | .3301 81948  | .5724 67040  | .8635 05458  |
| .2344  | .9439 50320  | .3300 87554  | .5726 53398  | .8636 62714  |
| 1.2345 | 0.9439 83324 | 0.3299 93158 | 1.5728 39773 | 1.8638 19989 |
| .2346  | .9440 16319  | .3298 98758  | .5730 26162  | .8639 77282  |
| .2347  | .9440 49304  | .3298 04354  | .5732 12568  | .8641 34594  |
| .2348  | .9440 82279  | .3297 09948  | .5733 98989  | .8642 91924  |
| .2349  | .9441 15246  | .3296 15538  | .5735 85426  | .8644 49274  |

| x      | sin x        | cos x        | tanh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.2350 | 0.9441 48203 | 0.3295 21125 | 1.5737 71379 | 1.6846 06642 |
| .2351  | .9441 81150  | .3294 26708  | .5739 53342  | .8647 64028  |
| .2352  | .9442 14088  | .3293 32289  | .5741 44253  | .8649 21433  |
| .2353  | .9442 47016  | .3292 37866  | .5742 35163  | .8650 78857  |
| .2354  | .9442 79935  | .3291 43449  | .5743 26073  | .8652 36299  |
| 1.2355 | 0.9443 12845 | 0.3290 49030 | 1.5747 94579 | 1.6859 93761 |
| .2356  | .9443 45745  | .3289 54617  | .5748 85489  | .8655 51240  |
| .2357  | .9443 78636  | .3288 60200  | .5750 76409  | .8657 08739  |
| .2358  | .9444 11517  | .3287 65781  | .5752 67329  | .8658 66256  |
| .2359  | .9444 44389  | .3286 71363  | .5754 58249  | .8660 23792  |
| 1.2360 | 0.9444 77258 | 0.3285 76943 | 1.5758 37373 | 1.6861 81346 |
| .2361  | .9445 10104  | .3284 82526  | .5759 28283  | .8663 38919  |
| .2362  | .9445 42948  | .3283 88109  | .5760 19193  | .8664 96511  |
| .2363  | .9445 75782  | .3282 93692  | .5761 10103  | .8666 54121  |
| .2364  | .9446 08607  | .3281 99275  | .5762 01013  | .8668 11750  |
| 1.2365 | 0.9446 41422 | 0.3281 04852 | 1.5764 76507 | 1.6869 69398 |
| .2366  | .9446 74228  | .3280 10437  | .5765 67417  | .8671 27064  |
| .2367  | .9447 07024  | .3279 16020  | .5766 58327  | .8672 84749  |
| .2368  | .9447 39811  | .3278 21603  | .5767 49237  | .8674 42453  |
| .2369  | .9447 72588  | .3277 27186  | .5768 40147  | .8676 00176  |
| 1.2370 | 0.9448 05356 | 0.3276 32767 | 1.5769 38249 | 1.6877 57917 |
| .2371  | .9448 38115  | .3275 38350  | .5770 29159  | .8679 15676  |
| .2372  | .9448 70864  | .3274 43933  | .5771 20069  | .8680 73455  |
| .2373  | .9449 03603  | .3273 49514  | .5772 10979  | .8682 31252  |
| .2374  | .9449 36333  | .3272 55097  | .5773 01889  | .8683 89068  |
| 1.2375 | 0.9449 69054 | 0.3271 60678 | 1.5784 38319 | 1.6885 46902 |
| .2376  | .9450 01765  | .3270 66261  | .5785 29229  | .8687 04755  |
| .2377  | .9450 34467  | .3269 71844  | .5786 20139  | .8688 62627  |
| .2378  | .9450 67159  | .3268 77427  | .5787 11049  | .8690 20518  |
| .2379  | .9450 99842  | .3267 83010  | .5788 01959  | .8691 78427  |
| 1.2380 | 0.9451 32616 | 0.3266 88593 | 1.5793 72739 | 1.6893 36355 |
| .2381  | .9451 65180  | .3265 94176  | .5794 63649  | .8694 94302  |
| .2382  | .9451 97834  | .3264 99759  | .5795 54559  | .8696 52257  |
| .2383  | .9452 30479  | .3264 05342  | .5796 45469  | .8698 10251  |
| .2384  | .9452 63115  | .3263 10925  | .5797 36379  | .8699 68254  |
| 1.2385 | 0.9452 95741 | 0.3262 16508 | 1.5803 07655 | 1.6899 26275 |
| .2386  | .9453 28358  | .3261 22091  | .5804 98565  | .8702 84315  |
| .2387  | .9453 60965  | .3260 27674  | .5805 89475  | .8704 42374  |
| .2388  | .9453 93563  | .3259 33257  | .5806 80385  | .8706 00452  |
| .2389  | .9454 26151  | .3258 38840  | .5807 71295  | .8707 58549  |
| 1.2390 | 0.9454 58730 | 0.3257 44423 | 1.5812 42916 | 1.6909 16663 |
| .2391  | .9454 91300  | .3256 50006  | .5813 33826  | .8710 74796  |
| .2392  | .9455 23860  | .3255 55589  | .5814 24736  | .8712 32949  |
| .2393  | .9455 56410  | .3254 61172  | .5815 15646  | .8713 91120  |
| .2394  | .9455 88951  | .3253 66755  | .5816 06556  | .8715 49310  |
| 1.2395 | 0.9456 21483 | 0.3252 72338 | 1.5821 78572 | 1.6917 07518 |
| .2396  | .9456 54005  | .3251 77921  | .5822 69482  | .8718 65745  |
| .2397  | .9456 86518  | .3250 83504  | .5823 60392  | .8720 23991  |
| .2398  | .9457 19021  | .3249 89087  | .5824 51302  | .8721 82256  |
| .2399  | .9457 51515  | .3248 94670  | .5825 42212  | .8723 40539  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.2400 | 0.9457 83999 | 0.3247 96284 | 1.5831 14623 | 1.8724 98841 |
| .2401  | .9458 16474  | .3247 01704  | .5833 01881  | .8726 57162  |
| .2402  | .9458 48940  | .3246 97121  | .5834 89155  | .8728 15502  |
| .2403  | .9458 81396  | .3246 12535  | .5836 76444  | .8729 73860  |
| .2404  | .9459 13842  | .3244 17945  | .5838 63750  | .8731 32237  |
| 1.2405 | 0.9459 46279 | 0.3243 23352 | 1.5840 51071 | 1.8732 90633 |
| .2406  | .9459 78707  | .3242 28756  | .5842 38408  | .8734 49047  |
| .2407  | .9460 11125  | .3241 34156  | .5844 25761  | .8736 07480  |
| .2408  | .9460 43534  | .3240 39553  | .5846 13129  | .8737 65932  |
| .2409  | .9460 75933  | .3239 44947  | .5848 00514  | .8739 24403  |
| 1.2410 | 0.9461 08323 | 0.3238 50338 | 1.5849 87914 | 1.8740 82892 |
| .2411  | .9461 40703  | .3237 55726  | .5851 75330  | .8742 41401  |
| .2412  | .9461 73074  | .3236 61110  | .5853 62762  | .8743 99928  |
| .2413  | .9462 05435  | .3235 66491  | .5855 50210  | .8745 58473  |
| .2414  | .9462 37787  | .3234 71869  | .5857 37674  | .8747 17038  |
| 1.2415 | 0.9462 70130 | 0.3233 77244 | 1.5859 25154 | 1.8748 75621 |
| .2416  | .9463 02463  | .3232 82615  | .5861 12649  | .8750 34223  |
| .2417  | .9463 34786  | .3231 87983  | .5863 00161  | .8751 92843  |
| .2418  | .9463 67100  | .3230 93348  | .5864 87688  | .8753 51483  |
| .2419  | .9463 99405  | .3229 98710  | .5866 75231  | .8755 10141  |
| 1.2420 | 0.9464 31700 | 0.3229 04068 | 1.5868 62790 | 1.8756 68818 |
| .2421  | .9464 63986  | .3228 09423  | .5870 50365  | .8758 27513  |
| .2422  | .9464 96262  | .3227 14775  | .5872 37955  | .8759 86228  |
| .2423  | .9465 28529  | .3226 20124  | .5874 25562  | .8761 44961  |
| .2424  | .9465 60786  | .3225 25470  | .5876 13184  | .8763 03713  |
| 1.2425 | 0.9465 93034 | 0.3224 30812 | 1.5878 00823 | 1.8764 62484 |
| .2426  | .9466 25272  | .3223 36151  | .5879 88477  | .8766 21273  |
| .2427  | .9466 57501  | .3222 41487  | .5881 76147  | .8767 80081  |
| .2428  | .9466 89720  | .3221 46820  | .5883 63833  | .8769 38908  |
| .2429  | .9467 21930  | .3220 52149  | .5885 51535  | .8770 97754  |
| 1.2430 | 0.9467 54131 | 0.3219 57475 | 1.5887 39252 | 1.8772 56619 |
| .2431  | .9467 86322  | .3218 62798  | .5889 26986  | .8774 15502  |
| .2432  | .9468 18503  | .3217 68118  | .5891 14735  | .8775 74404  |
| .2433  | .9468 50675  | .3216 73434  | .5893 02501  | .8777 33325  |
| .2434  | .9468 82838  | .3215 78748  | .5894 90282  | .8778 92264  |
| 1.2435 | 0.9469 14991 | 0.3214 84058 | 1.5896 78079 | 1.8780 51223 |
| .2436  | .9469 47135  | .3213 89365  | .5898 65892  | .8782 10200  |
| .2437  | .9469 79269  | .3212 94668  | .5900 53721  | .8783 69196  |
| .2438  | .9470 11394  | .3211 99969  | .5902 41566  | .8785 28211  |
| .2439  | .9470 43509  | .3211 05266  | .5904 29427  | .8786 87244  |
| 1.2440 | 0.9470 75615 | 0.3210 10560 | 1.5906 17304 | 1.8788 46297 |
| .2441  | .9471 07711  | .3209 15851  | .5908 05196  | .8790 05368  |
| .2442  | .9471 39798  | .3208 21139  | .5909 93105  | .8791 64458  |
| .2443  | .9471 71875  | .3207 26423  | .5911 81029  | .8793 23566  |
| .2444  | .9472 03943  | .3206 31704  | .5913 68969  | .8794 82694  |
| 1.2445 | 0.9472 36002 | 0.3205 36982 | 1.5915 56926 | 1.8796 41840 |
| .2446  | .9472 68051  | .3204 42257  | .5917 44898  | .8798 01005  |
| .2447  | .9473 00090  | .3203 47529  | .5919 32886  | .8799 60189  |
| .2448  | .9473 32120  | .3202 52797  | .5921 20890  | .8801 19392  |
| .2449  | .9473 64141  | .3201 58062  | .5923 08910  | .8802 78613  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.2450 | 0.9473 96152 | 0.3200 63324 | 1.5924 96946 | 1.8604 37854 |
| .2451  | .9474 28153  | .3199 68583  | .5926 84997  | .8805 97113  |
| .2452  | .9474 60146  | .3198 73839  | .5928 73065  | .8807 56391  |
| .2453  | .9474 92128  | .3197 79091  | .5930 61149  | .8809 15687  |
| .2454  | .9475 24101  | .3196 84340  | .5932 49248  | .8810 75003  |
| 1.2455 | 0.9475 56065 | 0.3195 89586 | 1.5934 37364 | 1.8812 34337 |
| .2456  | .9475 88019  | .3194 94829  | .5936 25495  | .8813 93690  |
| .2457  | .9476 19964  | .3194 00069  | .5938 13642  | .8815 53062  |
| .2458  | .9476 51899  | .3193 05305  | .5940 01806  | .8817 12453  |
| .2459  | .9476 83825  | .3192 10538  | .5941 89985  | .8818 71863  |
| 1.2460 | 0.9477 15741 | 0.3191 15768 | 1.5943 78180 | 1.8820 31291 |
| .2461  | .9477 47648  | .3190 20995  | .5945 66391  | .8821 90738  |
| .2462  | .9477 79546  | .3189 26219  | .5947 54618  | .8823 50204  |
| .2463  | .9478 11433  | .3188 31439  | .5949 42861  | .8825 09689  |
| .2464  | .9478 43312  | .3187 36656  | .5951 31120  | .8826 69193  |
| 1.2465 | 0.9478 75181 | 0.3186 41870 | 1.5953 19395 | 1.8828 28716 |
| .2466  | .9479 07040  | .3185 47081  | .5955 07686  | .8829 88257  |
| .2467  | .9479 38890  | .3184 52289  | .5956 95993  | .8831 47817  |
| .2468  | .9479 70731  | .3183 57494  | .5958 84315  | .8833 07396  |
| .2469  | .9480 02562  | .3182 62695  | .5960 72654  | .8834 66994  |
| 1.2470 | 0.9480 34383 | 0.3181 67893 | 1.5962 61009 | 1.8836 26611 |
| .2471  | .9480 66195  | .3180 73088  | .5964 49379  | .8837 86246  |
| .2472  | .9480 97998  | .3179 78280  | .5966 37766  | .8839 45901  |
| .2473  | .9481 29791  | .3178 83468  | .5968 26169  | .8841 05574  |
| .2474  | .9481 61575  | .3177 88654  | .5970 14587  | .8842 65266  |
| 1.2475 | 0.9481 93349 | 0.3176 93836 | 1.5972 03022 | 1.8844 24977 |
| .2476  | .9482 25113  | .3175 99015  | .5973 91472  | .8845 84706  |
| .2477  | .9482 56868  | .3175 04191  | .5975 79939  | .8847 44455  |
| .2478  | .9482 88614  | .3174 09364  | .5977 68421  | .8849 04222  |
| .2479  | .9483 20350  | .3173 14533  | .5979 56919  | .8850 64009  |
| 1.2480 | 0.9483 52077 | 0.3172 19700 | 1.5981 45434 | 1.8852 23814 |
| .2481  | .9483 83794  | .3171 24863  | .5983 33964  | .8853 83638  |
| .2482  | .9484 15502  | .3170 30023  | .5985 22511  | .8855 43481  |
| .2483  | .9484 47200  | .3169 35180  | .5987 11073  | .8857 03342  |
| .2484  | .9484 78889  | .3168 40334  | .5988 99651  | .8858 63223  |
| 1.2485 | 0.9485 10568 | 0.3167 45484 | 1.5990 88246 | 1.8860 23122 |
| .2486  | .9485 42238  | .3166 50631  | .5992 76856  | .8861 83040  |
| .2487  | .9485 73899  | .3165 55776  | .5994 65482  | .8863 42977  |
| .2488  | .9486 05549  | .3164 60917  | .5996 54124  | .8865 02933  |
| .2489  | .9486 37191  | .3163 66054  | .5998 42783  | .8866 62908  |
| 1.2490 | 0.9486 68823 | 0.3162 71189 | 1.6000 31457 | 1.8868 22902 |
| .2491  | .9487 00445  | .3161 76321  | .6002 20147  | .8869 82915  |
| .2492  | .9487 32058  | .3160 81449  | .6004 08854  | .8871 42946  |
| .2493  | .9487 63661  | .3159 86574  | .6005 97576  | .8873 02996  |
| .2494  | .9487 95255  | .3158 91696  | .6007 86314  | .8874 63066  |
| 1.2495 | 0.9488 26840 | 0.3157 96815 | 1.6009 75069 | 1.8876 23154 |
| .2496  | .9488 58414  | .3157 01931  | .6011 63839  | .8877 83261  |
| .2497  | .9488 89980  | .3156 07044  | .6013 52625  | .8879 43386  |
| .2498  | .9489 21536  | .3155 12153  | .6015 41428  | .8881 03531  |
| .2499  | .9489 53082  | .3154 17259  | .6017 30246  | .8882 63695  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.2500 | 0.9489 84619 | 0.3153 22362 | 1.6019 19080 | 1.8884 23377 |
| .2501  | .9490 16147  | .3152 27432  | .6021 07931  | .8885 84079  |
| .2502  | .9490 47665  | .3151 32559  | .6022 96797  | .8887 44299  |
| .2503  | .9490 79173  | .3150 37653  | .6024 85680  | .8889 04538  |
| .2504  | .9491 10672  | .3149 42743  | .6026 74578  | .8890 64796  |
| 1.2505 | 0.9491 42162 | 0.3148 47831 | 1.6023 63493 | 1.8892 25073 |
| .2506  | .9491 73642  | .3147 52915  | .6030 52423  | .8893 85369  |
| .2507  | .9492 05112  | .3146 57998  | .6032 41370  | .8895 45683  |
| .2508  | .9492 36574  | .3145 63074  | .6034 30332  | .8897 06017  |
| .2509  | .9492 68025  | .3144 68149  | .6036 19311  | .8898 66369  |
| 1.2510 | 0.9492 99467 | 0.3143 73220 | 1.6038 08305 | 1.8900 26741 |
| .2511  | .9493 30900  | .3142 78289  | .6039 97318  | .8901 87131  |
| .2512  | .9493 62323  | .3141 83354  | .6041 86343  | .8903 47540  |
| .2513  | .9493 93736  | .3140 88418  | .6043 75366  | .8905 07968  |
| .2514  | .9494 25141  | .3139 93475  | .6045 64444  | .8906 68415  |
| 1.2515 | 0.9494 56535 | 0.3138 98531 | 1.6047 53519 | 1.8908 28881 |
| .2516  | .9494 87920  | .3138 03584  | .6049 42610  | .8909 89366  |
| .2517  | .9495 19296  | .3137 08634  | .6051 31717  | .8911 49870  |
| .2518  | .9495 50662  | .3136 13680  | .6053 20840  | .8913 10392  |
| .2519  | .9495 82019  | .3135 18724  | .6055 09979  | .8914 70934  |
| 1.2520 | 0.9496 13366 | 0.3134 23784 | 1.6056 99134 | 1.8916 31494 |
| .2521  | .9496 44703  | .3133 28801  | .6058 88306  | .8917 92074  |
| .2522  | .9496 76031  | .3132 33835  | .6060 77493  | .8919 52672  |
| .2523  | .9497 07350  | .3131 38866  | .6062 66696  | .8921 13289  |
| .2524  | .9497 38659  | .3130 43883  | .6064 55915  | .8922 73925  |
| 1.2525 | 0.9497 69959 | 0.3129 48913 | 1.6066 45151 | 1.8924 34580 |
| .2526  | .9498 01249  | .3128 53939  | .6068 34402  | .8925 95254  |
| .2527  | .9498 32530  | .3127 58958  | .6070 23670  | .8927 55947  |
| .2528  | .9498 63801  | .3126 63973  | .6072 12954  | .8929 16659  |
| .2529  | .9498 95062  | .3125 68985  | .6074 02253  | .8930 77390  |
| 1.2530 | 0.9499 26315 | 0.3124 73994 | 1.6075 91569 | 1.8932 38140 |
| .2531  | .9499 57557  | .3123 79000  | .6077 80901  | .8933 98908  |
| .2532  | .9499 88790  | .3122 84002  | .6079 70249  | .8935 59696  |
| .2533  | .9500 20014  | .3121 89002  | .6081 59613  | .8937 20502  |
| .2534  | .9500 51228  | .3120 93993  | .6083 48993  | .8938 81328  |
| 1.2535 | 0.9500 82433 | 0.3119 98992 | 1.6085 38389 | 1.8940 42172 |
| .2536  | .9501 13628  | .3119 03982  | .6087 27801  | .8942 03035  |
| .2537  | .9501 44814  | .3118 08969  | .6089 17230  | .8943 63918  |
| .2538  | .9501 75990  | .3117 13953  | .6091 06674  | .8945 24819  |
| .2539  | .9502 07156  | .3116 18934  | .6092 96135  | .8946 85739  |
| 1.2540 | 0.9502 38314 | 0.3115 23911 | 1.6094 85611 | 1.8948 46678 |
| .2541  | .9502 69461  | .3114 28886  | .6096 75104  | .8950 07636  |
| .2542  | .9503 00599  | .3113 33858  | .6098 64613  | .8951 68613  |
| .2543  | .9503 31728  | .3112 38826  | .6100 54138  | .8953 29609  |
| .2544  | .9503 62847  | .3111 43791  | .6102 43679  | .8954 90624  |
| 1.2545 | 0.9503 93957 | 0.3110 48753 | 1.6104 33236 | 1.8956 51658 |
| .2546  | .9504 25057  | .3109 53712  | .6106 22809  | .8958 12710  |
| .2547  | .9504 56147  | .3108 58663  | .6108 12398  | .8959 73782  |
| .2548  | .9504 87229  | .3107 63621  | .6110 02004  | .8961 34873  |
| .2549  | .9505 18300  | .3106 68571  | .6111 91625  | .8962 95983  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.2550 | 0.9505 49362 | 0.3105 73518 | 1.6113 81263 | 1.8964 57111 |
| .2551  | .9505 80415  | .3104 78461  | .6115 70917  | .8966 18259  |
| .2552  | .9506 11458  | .3103 83401  | .6117 60587  | .8967 79425  |
| .2553  | .9506 42492  | .3102 88339  | .6119 50273  | .8969 40611  |
| .2554  | .9506 73516  | .3101 93273  | .6121 39975  | .8971 01816  |
| 1.2555 | 0.9507 04530 | 0.3100 98204 | 1.6123 29693 | 1.8972 63039 |
| .2556  | .9507 35535  | .3100 03132  | .6125 19427  | .8974 24281  |
| .2557  | .9507 66531  | .3099 08057  | .6127 09178  | .8975 85543  |
| .2558  | .9507 97517  | .3098 12979  | .6128 98945  | .8977 46823  |
| .2559  | .9508 28493  | .3097 17897  | .6130 88727  | .8979 08123  |
| 1.2560 | 0.9508 59461 | 0.3096 22813 | 1.6132 78526 | 1.8980 69441 |
| .2561  | .9508 90418  | .3095 27726  | .6134 68341  | .8982 30778  |
| .2562  | .9509 21366  | .3094 32635  | .6136 58172  | .8983 92135  |
| .2563  | .9509 52305  | .3093 37541  | .6138 48020  | .8985 53510  |
| .2564  | .9509 83234  | .3092 42445  | .6140 37883  | .8987 14904  |
| 1.2565 | 0.9510 14153 | 0.3091 47345 | 1.6142 27763 | 1.8988 76318 |
| .2566  | .9510 45063  | .3090 52242  | .6144 17658  | .8990 37750  |
| .2567  | .9510 75963  | .3089 57136  | .6146 07570  | .8991 99201  |
| .2568  | .9511 06854  | .3088 62026  | .6147 97498  | .8993 60671  |
| .2569  | .9511 37736  | .3087 66914  | .6149 87442  | .8995 22161  |
| 1.2570 | 0.9511 68608 | 0.3086 71799 | 1.6151 77403 | 1.8996 83669 |
| .2571  | .9511 99470  | .3085 76681  | .6153 67379  | .8998 45196  |
| .2572  | .9512 30323  | .3084 81559  | .6155 57372  | .9000 06742  |
| .2573  | .9512 61167  | .3083 86434  | .6157 47380  | .9001 68308  |
| .2574  | .9512 92000  | .3082 91307  | .6159 37405  | .9003 29892  |
| 1.2575 | 0.9513 22825 | 0.3081 96176 | 1.6161 27446 | 1.9004 91495 |
| .2576  | .9513 53640  | .3081 01042  | .6163 17504  | .9006 53117  |
| .2577  | .9513 84445  | .3080 05905  | .6165 07577  | .9008 14759  |
| .2578  | .9514 15241  | .3079 10765  | .6166 97667  | .9009 76419  |
| .2579  | .9514 46027  | .3078 15622  | .6168 87772  | .9011 38098  |
| 1.2580 | 0.9514 76804 | 0.3077 20476 | 1.6170 77894 | 1.9012 99796 |
| .2581  | .9515 07571  | .3076 25327  | .6172 68032  | .9014 61514  |
| .2582  | .9515 38329  | .3075 30175  | .6174 58186  | .9016 23250  |
| .2583  | .9515 69077  | .3074 35019  | .6176 48357  | .9017 85005  |
| .2584  | .9515 99816  | .3073 39861  | .6178 38543  | .9019 46780  |
| 1.2585 | 0.9516 30545 | 0.3072 44699 | 1.6180 28746 | 1.9021 08573 |
| .2586  | .9516 61265  | .3071 49535  | .6182 18965  | .9022 70385  |
| .2587  | .9516 91975  | .3070 54367  | .6184 09200  | .9024 32217  |
| .2588  | .9517 22676  | .3069 59196  | .6185 99452  | .9025 94067  |
| .2589  | .9517 53367  | .3068 64023  | .6187 89719  | .9027 55937  |
| 1.2590 | 0.9517 84049 | 0.3067 68846 | 1.6189 80003 | 1.9029 17825 |
| .2591  | .9518 14721  | .3066 73666  | .6191 70303  | .9030 79733  |
| .2592  | .9518 45383  | .3065 78483  | .6193 60619  | .9032 41659  |
| .2593  | .9518 76037  | .3064 83297  | .6195 50951  | .9034 03605  |
| .2594  | .9519 06680  | .3063 88108  | .6197 41299  | .9035 65569  |
| 1.2595 | 0.9519 37314 | 0.3062 92915 | 1.6199 31664 | 1.9037 27553 |
| .2596  | .9519 67939  | .3061 97720  | .6201 22045  | .9038 89556  |
| .2597  | .9519 98554  | .3061 02522  | .6203 12442  | .9040 51578  |
| .2598  | .9520 29159  | .3060 07320  | .6205 02855  | .9042 13618  |
| .2599  | .9520 59755  | .3059 12116  | .6206 93285  | .9043 75678  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.2600 | 0.9520 90342 | 0.3058 16908 | 1.6208 83730 | 1.9045 37757 |
| .2601  | .9521 20919  | .3057 21698  | .6210 74192  | .9046 99855  |
| .2602  | .9521 51486  | .3056 26484  | .6212 64670  | .9048 61972  |
| .2603  | .9521 82044  | .3055 31268  | .6214 55165  | .9050 24108  |
| .2604  | .9522 12592  | .3054 36048  | .6216 45675  | .9051 86263  |
| 1.2605 | 0.9522 43131 | 0.3053 40825 | 1.6218 36202 | 1.9053 48437 |
| .2606  | .9522 73660  | .3052 45599  | .6220 26745  | .9055 10630  |
| .2607  | .9523 04180  | .3051 50370  | .6222 17304  | .9056 72842  |
| .2608  | .9523 34690  | .3050 55138  | .6224 07879  | .9058 35074  |
| .2609  | .9523 65191  | .3049 59903  | .6225 98471  | .9059 97324  |
| 1.2610 | 0.9523 95682 | 0.3048 64665 | 1.6227 89079 | 1.9061 59593 |
| .2611  | .9524 26164  | .3047 69424  | .6229 79703  | .9063 21882  |
| .2612  | .9524 56636  | .3046 74180  | .6231 70343  | .9064 84189  |
| .2613  | .9524 87099  | .3045 78933  | .6233 61000  | .9066 46516  |
| .2614  | .9525 17552  | .3044 83683  | .6235 51673  | .9068 08861  |
| 1.2615 | 0.9525 47996 | 0.3043 88429 | 1.6237 42362 | 1.9069 71226 |
| .2616  | .9525 78430  | .3042 93173  | .6239 33067  | .9071 33610  |
| .2617  | .9526 08854  | .3041 97914  | .6241 23788  | .9072 96013  |
| .2618  | .9526 39269  | .3041 02651  | .6243 14526  | .9074 58435  |
| .2619  | .9526 69675  | .3040 07386  | .6245 05280  | .9076 20876  |
| 1.2620 | 0.9527 00071 | 0.3039 12117 | 1.6246 96050 | 1.9077 83336 |
| .2621  | .9527 30457  | .3038 16846  | .6248 86837  | .9079 45815  |
| .2622  | .9527 60834  | .3037 21571  | .6250 77639  | .9081 08313  |
| .2623  | .9527 91202  | .3036 26294  | .6252 68458  | .9082 70830  |
| .2624  | .9528 21559  | .3035 31013  | .6254 59294  | .9084 33367  |
| 1.2625 | 0.9528 51908 | 0.3034 35729 | 1.6256 50145 | 1.9085 95922 |
| .2626  | .9528 82247  | .3033 40443  | .6258 41013  | .9087 58497  |
| .2627  | .9529 12576  | .3032 45153  | .6260 31897  | .9089 21090  |
| .2628  | .9529 42896  | .3031 49860  | .6262 22797  | .9090 83703  |
| .2629  | .9529 73206  | .3030 54584  | .6264 13713  | .9092 46335  |
| 1.2630 | 0.9530 03507 | 0.3029 59265 | 1.6266 04646 | 1.9094 08986 |
| .2631  | .9530 33798  | .3028 63964  | .6267 95595  | .9095 71656  |
| .2632  | .9530 64079  | .3027 68659  | .6269 86561  | .9097 34345  |
| .2633  | .9530 94351  | .3026 73351  | .6271 77542  | .9098 97053  |
| .2634  | .9531 24614  | .3025 78040  | .6273 68540  | .9100 59780  |
| 1.2635 | 0.9531 54867 | 0.3024 82726 | 1.6275 59554 | 1.9102 22527 |
| .2636  | .9531 85111  | .3023 87409  | .6277 50585  | .9103 85292  |
| .2637  | .9532 15345  | .3022 92089  | .6279 41631  | .9105 48077  |
| .2638  | .9532 45569  | .3021 96766  | .6281 32694  | .9107 10881  |
| .2639  | .9532 75784  | .3021 01440  | .6283 23773  | .9108 73704  |
| 1.2640 | 0.9533 05989 | 0.3020 06111 | 1.6285 14869 | 1.9110 36545 |
| .2641  | .9533 36185  | .3019 10779  | .6287 05981  | .9111 99407  |
| .2642  | .9533 66371  | .3018 15443  | .6288 97109  | .9113 62287  |
| .2643  | .9533 96548  | .3017 20105  | .6290 88253  | .9115 25186  |
| .2644  | .9534 26715  | .3016 24764  | .6292 79414  | .9116 88104  |
| 1.2645 | 0.9534 56873 | 0.3015 29420 | 1.6294 70591 | 1.9118 51042 |
| .2646  | .9534 87021  | .3014 34073  | .6296 61784  | .9120 13998  |
| .2647  | .9535 17160  | .3013 38723  | .6298 52994  | .9121 76974  |
| .2648  | .9535 47289  | .3012 43369  | .6300 44219  | .9123 39969  |
| .2649  | .9535 77409  | .3011 48013  | .6302 35462  | .9125 02983  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.2650 | 0.9536 07519 | 0.3010 52654 | 1.6304 26720 | 1.9126 66016 |
| .2651  | .9536 37619  | .3009 57292  | .6306 17995  | .9128 29068  |
| .2652  | .9536 67710  | .3008 61926  | .6308 09286  | .9129 92140  |
| .2653  | .9536 97792  | .3007 66558  | .6310 00593  | .9131 55230  |
| .2654  | .9537 27863  | .3006 71187  | .6311 91917  | .9133 18340  |
| 1.2655 | 0.9537 57926 | 0.3005 75812 | 1.6313 83257 | 1.9134 81469 |
| .2656  | .9537 87979  | .3004 80435  | .6315 74613  | .9136 44616  |
| .2657  | .9538 18022  | .3003 85055  | .6317 65986  | .9138 07784  |
| .2658  | .9538 48056  | .3002 89672  | .6319 57375  | .9139 70970  |
| .2659  | .9538 78080  | .3001 94285  | .6321 48780  | .9141 34175  |
| 1.2660 | 0.9539 08094 | 0.3000 98896 | 1.6323 40202 | 1.9142 97389 |
| .2661  | .9539 38100  | .3000 03504  | .6325 31639  | .9144 60643  |
| .2662  | .9539 68095  | .2999 08108  | .6327 23094  | .9146 23906  |
| .2663  | .9539 98081  | .2998 12710  | .6329 14564  | .9147 87188  |
| .2664  | .9540 28058  | .2997 17309  | .6331 06051  | .9149 50489  |
| 1.2665 | 0.9540 58025 | 0.2996 21904 | 1.6332 97554 | 1.9151 13809 |
| .2666  | .9540 87982  | .2995 26497  | .6334 89074  | .9152 77148  |
| .2667  | .9541 17930  | .2994 31087  | .6336 80610  | .9154 40507  |
| .2668  | .9541 47868  | .2993 35673  | .6338 72162  | .9156 03884  |
| .2669  | .9541 77797  | .2992 40257  | .6340 63731  | .9157 67281  |
| 1.2670 | 0.9542 07716 | 0.2991 44838 | 1.6342 55315 | 1.9159 30697 |
| .2671  | .9542 37626  | .2990 49416  | .6344 46917  | .9160 94132  |
| .2672  | .9542 67526  | .2989 53990  | .6346 38534  | .9162 57586  |
| .2673  | .9542 97417  | .2988 58562  | .6348 30168  | .9164 21060  |
| .2674  | .9543 27298  | .2987 63131  | .6350 21818  | .9165 84552  |
| 1.2675 | 0.9543 57169 | 0.2986 67697 | 1.6352 13485 | 1.9167 48064 |
| .2676  | .9543 87031  | .2985 72259  | .6354 05168  | .9169 11595  |
| .2677  | .9544 16884  | .2984 76819  | .6355 96867  | .9170 75145  |
| .2678  | .9544 46727  | .2983 81376  | .6357 88583  | .9172 38715  |
| .2679  | .9544 76560  | .2982 85930  | .6359 80315  | .9174 02303  |
| 1.2680 | 0.9545 06384 | 0.2981 90481 | 1.6361 72064 | 1.9175 65911 |
| .2681  | .9545 36198  | .2980 95029  | .6363 63828  | .9177 29537  |
| .2682  | .9545 66003  | .2979 99574  | .6365 55609  | .9178 93183  |
| .2683  | .9545 95798  | .2979 04115  | .6367 47407  | .9180 56849  |
| .2684  | .9546 25584  | .2978 08654  | .6369 39221  | .9182 20533  |
| 1.2685 | 0.9546 55360 | 0.2977 13190 | 1.6371 31051 | 1.9183 84236 |
| .2686  | .9546 85126  | .2976 17723  | .6373 22898  | .9185 47959  |
| .2687  | .9547 14883  | .2975 22253  | .6375 14761  | .9187 11701  |
| .2688  | .9547 44631  | .2974 26780  | .6377 06640  | .9188 75462  |
| .2689  | .9547 74369  | .2973 31304  | .6378 98536  | .9190 39242  |
| 1.2690 | 0.9548 04097 | 0.2972 35825 | 1.6380 90448 | 1.9192 03042 |
| .2691  | .9548 33816  | .2971 40344  | .6382 82376  | .9193 66860  |
| .2692  | .9548 63525  | .2970 44859  | .6384 74321  | .9195 30698  |
| .2693  | .9548 93225  | .2969 49371  | .6386 66283  | .9196 94555  |
| .2694  | .9549 22915  | .2968 53880  | .6388 58260  | .9198 58431  |
| 1.2695 | 0.9549 52596 | 0.2967 58386 | 1.6390 50254 | 1.9200 22327 |
| .2696  | .9549 82267  | .2966 62890  | .6392 42265  | .9201 86242  |
| .2697  | .9550 11928  | .2965 67390  | .6394 34291  | .9203 50175  |
| .2698  | .9550 41580  | .2964 71887  | .6396 26335  | .9205 14128  |
| .2699  | .9550 71223  | .2963 76382  | .6398 18394  | .9206 78101  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.2700 | 0.9551 00856 | 0.2962 80873 | 1.6400 10470 | 1.9208 42092 |
| .2701  | .9551 30479  | .2961 25361  | .6402 02563  | .9210 06103  |
| .2702  | .9551 60093  | .2960 89847  | .6403 94672  | .9211 70133  |
| .2703  | .9551 89697  | .2959 94329  | .6405 26797  | .9213 34182  |
| .2704  | .9552 19292  | .2958 98809  | .6407 78938  | .9214 98250  |
| 1.2705 | 0.9552 48877 | 0.2958 03285 | 1.6409 71096 | 1.9216 62337 |
| .2706  | .9552 78452  | .2957 07759  | .6411 63271  | .9218 26444  |
| .2707  | .9553 08018  | .2956 12230  | .6413 55462  | .9219 90570  |
| .2708  | .9553 37575  | .2955 16698  | .6415 47669  | .9221 54715  |
| .2709  | .9553 67122  | .2954 21162  | .6417 39893  | .9223 18880  |
| 1.2710 | 0.9553 96659 | 0.2953 25624 | 1.6419 32133 | 1.9224 83063 |
| .2711  | .9554 26187  | .2952 30083  | .6421 24389  | .9226 47266  |
| .2712  | .9554 55705  | .2951 34539  | .6423 16662  | .9228 11468  |
| .2713  | .9554 85214  | .2950 38992  | .6425 08952  | .9229 75729  |
| .2714  | .9555 14713  | .2949 43442  | .6427 01257  | .9231 39990  |
| 1.2715 | 0.9555 44202 | 0.2948 47889 | 1.6428 93580 | 1.9233 04270 |
| .2716  | .9555 73682  | .2947 52333  | .6430 85918  | .9234 68569  |
| .2717  | .9556 03153  | .2946 56774  | .6432 78273  | .9236 32887  |
| .2718  | .9556 32614  | .2945 61212  | .6434 70645  | .9237 97224  |
| .2719  | .9556 62065  | .2944 65648  | .6436 63033  | .9239 61581  |
| 1.2720 | 0.9556 91507 | 0.2943 70080 | 1.6438 55437 | 1.9241 25957 |
| .2721  | .9557 20939  | .2942 74509  | .6440 47858  | .9242 90352  |
| .2722  | .9557 50362  | .2941 78936  | .6442 40295  | .9244 54766  |
| .2723  | .9557 79775  | .2940 83359  | .6444 32749  | .9246 19200  |
| .2724  | .9558 09178  | .2939 87780  | .6446 25219  | .9247 83653  |
| 1.2725 | 0.9558 38572 | 0.2938 92197 | 1.6448 17706 | 1.9249 48125 |
| .2726  | .9558 67957  | .2937 96612  | .6450 10209  | .9251 12617  |
| .2727  | .9558 97332  | .2937 01024  | .6452 02728  | .9252 77127  |
| .2728  | .9559 26697  | .2936 05433  | .6453 95264  | .9254 41657  |
| .2729  | .9559 56053  | .2935 09838  | .6455 87816  | .9256 06206  |
| 1.2730 | 0.9559 85399 | 0.2934 14241 | 1.6457 80385 | 1.9257 70775 |
| .2731  | .9560 14736  | .2933 18641  | .6459 72971  | .9259 35362  |
| .2732  | .9560 44063  | .2932 23038  | .6461 65572  | .9260 99969  |
| .2733  | .9560 73380  | .2931 27433  | .6463 58191  | .9262 64595  |
| .2734  | .9561 02688  | .2930 31824  | .6465 50825  | .9264 29241  |
| 1.2735 | 0.9561 31987 | 0.2929 36212 | 1.6467 43476 | 1.9265 93906 |
| .2736  | .9561 61275  | .2928 40597  | .6469 36144  | .9267 58590  |
| .2737  | .9561 90555  | .2927 44980  | .6471 28828  | .9269 23293  |
| .2738  | .9562 19824  | .2926 49359  | .6473 21529  | .9270 88015  |
| .2739  | .9562 49085  | .2925 53736  | .6475 14246  | .9272 52757  |
| 1.2740 | 0.9562 78335 | 0.2924 58109 | 1.6477 06979 | 1.9274 17518 |
| .2741  | .9563 07576  | .2923 62480  | .6478 99729  | .9275 82299  |
| .2742  | .9563 36808  | .2922 66848  | .6480 92496  | .9277 47096  |
| .2743  | .9563 66030  | .2921 71213  | .6482 85279  | .9279 11917  |
| .2744  | .9563 95242  | .2920 75575  | .6484 78078  | .9280 76755  |
| 1.2745 | 0.9564 24445 | 0.2919 79934 | 1.6486 70894 | 1.9282 41613 |
| .2746  | .9564 53638  | .2918 84290  | .6488 63726  | .9284 06489  |
| .2747  | .9564 82821  | .2917 88643  | .6490 56575  | .9285 71385  |
| .2748  | .9565 11996  | .2916 92993  | .6492 49441  | .9287 36301  |
| .2749  | .9565 41160  | .2915 97341  | .6494 42323  | .9289 01235  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.2750 | 0.9565 70315 | 0.2915 01685 | 1.6496 35221 | 1.9290 66189 |
| .2751  | .9565 99460  | .2914 06027  | .6498 28136  | .9292 31162  |
| .2752  | .9566 28596  | .2913 10365  | .6500 21067  | .9293 96155  |
| .2753  | .9566 57722  | .2912 14701  | .6502 14015  | .9295 61167  |
| .2754  | .9566 86839  | .2911 19034  | .6504 06979  | .9297 26198  |
| 1.2755 | 0.9567 15946 | 0.2910 23363 | 1.6505 99960 | 1.9298 91248 |
| .2756  | .9567 45044  | .2909 27690  | .6507 92958  | .9300 56318  |
| .2757  | .9567 74132  | .2908 32014  | .6509 85972  | .9302 21407  |
| .2758  | .9568 03210  | .2907 36336  | .6511 79002  | .9303 86515  |
| .2759  | .9568 32279  | .2906 40654  | .6513 72049  | .9305 51642  |
| 1.2760 | 0.9568 61338 | 0.2905 44969 | 1.6515 65112 | 1.9307 16789 |
| .2761  | .9568 90388  | .2904 49282  | .6517 58192  | .9308 81955  |
| .2762  | .9569 19428  | .2903 53591  | .6519 51289  | .9310 47141  |
| .2763  | .9569 48459  | .2902 57898  | .6521 44402  | .9312 12346  |
| .2764  | .9569 77480  | .2901 62201  | .6523 37531  | .9313 77570  |
| 1.2765 | 0.9570 06491 | 0.2900 66502 | 1.6525 30677 | 1.9315 42813 |
| .2766  | .9570 35493  | .2899 70800  | .6527 23840  | .9317 08076  |
| .2767  | .9570 64485  | .2898 75095  | .6529 17019  | .9318 73358  |
| .2768  | .9570 93468  | .2897 79387  | .6531 10214  | .9320 38659  |
| .2769  | .9571 22441  | .2896 83676  | .6533 03426  | .9322 03980  |
| 1.2770 | 0.9571 51405 | 0.2895 87963 | 1.6534 96655 | 1.9323 69320 |
| .2771  | .9571 80359  | .2894 92246  | .6536 89900  | .9325 34679  |
| .2772  | .9572 09303  | .2893 96527  | .6538 83162  | .9327 00058  |
| .2773  | .9572 38238  | .2893 00804  | .6540 76440  | .9328 65456  |
| .2774  | .9572 67163  | .2892 05079  | .6542 69735  | .9330 30873  |
| 1.2775 | 0.9572 96079 | 0.2891 09351 | 1.6544 63047 | 1.9331 96310 |
| .2776  | .9573 24985  | .2890 13620  | .6546 56374  | .9333 61766  |
| .2777  | .9573 53882  | .2889 17886  | .6548 49719  | .9335 27241  |
| .2778  | .9573 82769  | .2888 22149  | .6550 43080  | .9336 92736  |
| .2779  | .9574 11646  | .2887 26409  | .6552 36457  | .9338 58250  |
| 1.2780 | 0.9574 40514 | 0.2886 30667 | 1.6554 29852 | 1.9340 23783 |
| .2781  | .9574 69373  | .2885 34921  | .6556 23262  | .9341 89336  |
| .2782  | .9574 98221  | .2884 39173  | .6558 16689  | .9343 54908  |
| .2783  | .9575 27060  | .2883 43422  | .6560 10133  | .9345 20499  |
| .2784  | .9575 55890  | .2882 47667  | .6562 03594  | .9346 86110  |
| 1.2785 | 0.9575 84710 | 0.2881 51910 | 1.6563 97070 | 1.9348 51740 |
| .2786  | .9576 13520  | .2880 56150  | .6565 90564  | .9350 17389  |
| .2787  | .9576 42321  | .2879 60388  | .6567 84074  | .9351 83058  |
| .2788  | .9576 71112  | .2878 64622  | .6569 77600  | .9353 48746  |
| .2789  | .9576 99894  | .2877 68853  | .6571 71144  | .9355 14453  |
| 1.2790 | 0.9577 28666 | 0.2876 73082 | 1.6573 64703 | 1.9356 80180 |
| .2791  | .9577 57429  | .2875 77308  | .6575 58280  | .9358 45926  |
| .2792  | .9577 86182  | .2874 81530  | .6577 51873  | .9360 11692  |
| .2793  | .9578 14925  | .2873 85750  | .6579 45482  | .9361 77477  |
| .2794  | .9578 43659  | .2872 89968  | .6581 39108  | .9363 43281  |
| 1.2795 | 0.9578 72383 | 0.2871 94182 | 1.6583 32751 | 1.9365 09105 |
| .2796  | .9579 01098  | .2870 98393  | .6585 26410  | .9366 74947  |
| .2797  | .9579 29803  | .2870 02601  | .6587 20086  | .9368 40810  |
| .2798  | .9579 58498  | .2869 06807  | .6589 13778  | .9370 06692  |
| .2799  | .9579 87184  | .2868 11010  | .6591 07487  | .9371 72593  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.2800 | 0.9580 15860 | 0.2867 15210 | 1.6593 01213 | 1.9373 38513 |
| .2801  | .9580 44527  | .2866 19407  | .6594 94955  | .9375 04453  |
| .2802  | .9580 73184  | .2865 23601  | .6596 98713  | .9376 70412  |
| .2803  | .9581 01832  | .2864 27792  | .6598 92489  | .9378 36391  |
| .2804  | .9581 30470  | .2863 31980  | .6600 76281  | .9380 02389  |
| 1.2805 | 0.9581 59098 | 0.2862 36166 | 1.6602 70089 | 1.9381 68406 |
| .2806  | .9581 87717  | .2861 40349  | .6604 63914  | .9383 34443  |
| .2807  | .9582 16326  | .2860 44528  | .6606 57756  | .9385 00499  |
| .2808  | .9582 44926  | .2859 48705  | .6608 51615  | .9386 66574  |
| .2809  | .9582 73516  | .2858 52879  | .6610 45489  | .9388 32669  |
| 1.2810 | 0.9583 02096 | 0.2857 57051 | 1.6612 39381 | 1.9389 98783 |
| .2811  | .9583 30667  | .2856 61219  | .6614 33289  | .9391 64917  |
| .2812  | .9583 59229  | .2855 65384  | .6616 27214  | .9393 31070  |
| .2813  | .9583 87780  | .2854 69547  | .6618 21155  | .9394 97242  |
| .2814  | .9584 16323  | .2853 73707  | .6620 15113  | .9396 63434  |
| 1.2815 | 0.9584 44855 | 0.2852 77864 | 1.6622 09088 | 1.9398 29645 |
| .2816  | .9584 73378  | .2851 82018  | .6624 03079  | .9399 95876  |
| .2817  | .9585 01892  | .2850 86169  | .6625 97087  | .9401 62126  |
| .2818  | .9585 30395  | .2849 90318  | .6627 91112  | .9403 28395  |
| .2819  | .9585 58890  | .2848 94463  | .6629 85153  | .9404 94684  |
| 1.2820 | 0.9585 87374 | 0.2847 98606 | 1.6631 79211 | 1.9406 60992 |
| .2821  | .9586 15849  | .2847 02746  | .6633 73285  | .9408 27320  |
| .2822  | .9586 44315  | .2846 06883  | .6635 67376  | .9409 93667  |
| .2823  | .9586 72771  | .2845 11017  | .6637 61484  | .9411 60033  |
| .2824  | .9587 01217  | .2844 15148  | .6639 55608  | .9413 26419  |
| 1.2825 | 0.9587 29654 | 0.2843 19276 | 1.6641 49749 | 1.9414 92825 |
| .2826  | .9587 58081  | .2842 23402  | .6643 43907  | .9416 59249  |
| .2827  | .9587 86498  | .2841 27525  | .6645 38081  | .9418 25693  |
| .2828  | .9588 14906  | .2840 31645  | .6647 32272  | .9419 92157  |
| .2829  | .9588 43305  | .2839 35762  | .6649 26479  | .9421 58640  |
| 1.2830 | 0.9588 71694 | 0.2838 39876 | 1.6651 20704 | 1.9423 25142 |
| .2831  | .9589 00073  | .2837 43988  | .6653 14945  | .9424 91664  |
| .2832  | .9589 28442  | .2836 48096  | .6655 09202  | .9426 58205  |
| .2833  | .9589 56802  | .2835 52202  | .6657 03476  | .9428 24766  |
| .2834  | .9589 85153  | .2834 56305  | .6658 97767  | .9429 91346  |
| 1.2835 | 0.9590 13494 | 0.2833 60405 | 1.6660 92074 | 1.9431 57945 |
| .2836  | .9590 41825  | .2832 64502  | .6662 86399  | .9433 24564  |
| .2837  | .9590 70147  | .2831 68596  | .6664 80739  | .9434 91203  |
| .2838  | .9590 98459  | .2830 72688  | .6666 75097  | .9436 57860  |
| .2839  | .9591 26761  | .2829 76777  | .6668 69471  | .9438 24538  |
| 1.2840 | 0.9591 55054 | 0.2828 80863 | 1.6670 63862 | 1.9439 91234 |
| .2841  | .9591 83337  | .2827 84946  | .6672 58269  | .9441 57950  |
| .2842  | .9592 11611  | .2826 89026  | .6674 52693  | .9443 24686  |
| .2843  | .9592 39875  | .2825 93103  | .6676 47134  | .9444 91441  |
| .2844  | .9592 68130  | .2824 97178  | .6678 41592  | .9446 58215  |
| 1.2845 | 0.9592 96374 | 0.2824 01250 | 1.6680 36066 | 1.9448 25009 |
| .2846  | .9593 24610  | .2823 05319  | .6682 30557  | .9449 91823  |
| .2847  | .9593 52836  | .2822 09385  | .6684 25064  | .9451 58655  |
| .2848  | .9593 81052  | .2821 13448  | .6686 19588  | .9453 25508  |
| .2849  | .9594 09258  | .2820 17509  | .6688 14129  | .9454 92379  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.2850 | 0.9594 37455 | 0.2819 21566 | 1.6690 08687 | 1.9456 59270 |
| .2851  | .9594 65643  | .2818 25621  | .6692 03261  | .9458 26181  |
| .2852  | .9594 93820  | .2817 29673  | .6693 97852  | .9459 93111  |
| .2853  | .9595 21988  | .2816 33722  | .6695 92460  | .9461 60061  |
| .2854  | .9595 50147  | .2815 37769  | .6697 87084  | .9463 27030  |
| 1.2855 | 0.9595 78296 | 0.2814 41812 | 1.6699 81725 | 1.9464 94018 |
| .2856  | .9596 06435  | .2813 45853  | .6701 76383  | .9466 61026  |
| .2857  | .9596 34565  | .2812 49891  | .6703 71057  | .9468 28053  |
| .2858  | .9596 62685  | .2811 53926  | .6705 65748  | .9469 95100  |
| .2859  | .9596 90796  | .2810 57959  | .6707 60456  | .9471 62166  |
| 1.2860 | 0.9597 18897 | 0.2809 61988 | 1.6709 55181 | 1.9473 29252 |
| .2861  | .9597 46988  | .2808 66015  | .6711 49822  | .9474 96357  |
| .2862  | .9597 75070  | .2807 70039  | .6713 44680  | .9476 63482  |
| .2863  | .9598 03142  | .2806 74060  | .6715 39455  | .9478 30626  |
| .2864  | .9598 31205  | .2805 78078  | .6717 34246  | .9479 97790  |
| 1.2865 | 0.9598 59258 | 0.2804 82094 | 1.6719 29054 | 1.9481 64973 |
| .2866  | .9598 87301  | .2803 86106  | .6721 23879  | .9483 32176  |
| .2867  | .9599 15355  | .2802 90116  | .6723 18721  | .9484 99398  |
| .2868  | .9599 43359  | .2801 94123  | .6725 13579  | .9486 66640  |
| .2869  | .9599 71374  | .2800 98127  | .6727 08454  | .9488 33901  |
| 1.2870 | 0.9599 99379 | 0.2800 02129 | 1.6729 03346 | 1.9490 01181 |
| .2871  | .9600 27374  | .2799 06128  | .6730 98254  | .9491 68481  |
| .2872  | .9600 55360  | .2798 10123  | .6732 93180  | .9493 35801  |
| .2873  | .9600 83337  | .2797 14116  | .6734 88122  | .9495 03140  |
| .2874  | .9601 11303  | .2796 18107  | .6736 83080  | .9496 70499  |
| 1.2875 | 0.9601 39260 | 0.2795 22094 | 1.6738 78056 | 1.9498 37877 |
| .2876  | .9601 67208  | .2794 26079  | .6740 73048  | .9500 05274  |
| .2877  | .9601 95145  | .2793 30061  | .6742 68057  | .9501 72691  |
| .2878  | .9602 23074  | .2792 34040  | .6744 63082  | .9503 40128  |
| .2879  | .9602 50992  | .2791 38016  | .6746 58125  | .9505 07584  |
| 1.2880 | 0.9602 78901 | 0.2790 41990 | 1.6748 53184 | 1.9506 75059 |
| .2881  | .9603 06801  | .2789 45960  | .6750 48260  | .9508 42555  |
| .2882  | .9603 34690  | .2788 49928  | .6752 43352  | .9510 10069  |
| .2883  | .9603 62571  | .2787 53893  | .6754 38462  | .9511 77603  |
| .2884  | .9603 90441  | .2786 57856  | .6756 33588  | .9513 45157  |
| 1.2885 | 0.9604 18302 | 0.2785 61815 | 1.6758 28731 | 1.9515 12730 |
| .2886  | .9604 46153  | .2784 65772  | .6760 23890  | .9516 80323  |
| .2887  | .9604 73995  | .2783 69726  | .6762 19067  | .9518 47935  |
| .2888  | .9605 01827  | .2782 73677  | .6764 14260  | .9520 15566  |
| .2889  | .9605 29650  | .2781 77626  | .6766 09470  | .9521 83218  |
| 1.2890 | 0.9605 57463 | 0.2780 81571 | 1.6768 04697 | 1.9523 50888 |
| .2891  | .9605 85266  | .2779 85514  | .6769 99940  | .9525 18579  |
| .2892  | .9606 13060  | .2778 89454  | .6771 95200  | .9526 86288  |
| .2893  | .9606 40844  | .2777 93392  | .6773 90477  | .9528 54018  |
| .2894  | .9606 68619  | .2776 97326  | .6775 85771  | .9530 21766  |
| 1.2895 | 0.9606 96384 | 0.2776 01258 | 1.6777 81082 | 1.9531 89535 |
| .2896  | .9607 24139  | .2775 05187  | .6779 76409  | .9533 57323  |
| .2897  | .9607 51885  | .2774 09113  | .6781 71753  | .9535 25130  |
| .2898  | .9607 79621  | .2773 13037  | .6783 67114  | .9536 92957  |
| .2899  | .9608 07347  | .2772 16957  | .6785 62492  | .9538 60803  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.2900 | 0.9608 35064 | 0.2771 20875 | 1.6787 57886 | 1.9540 28669 |
| .2901  | .9608 62771  | .2770 24790  | .6789 53298  | .9541 96555  |
| .2902  | .9608 90469  | .2769 28703  | .6791 48726  | .9543 64460  |
| .2903  | .9609 18157  | .2768 32612  | .6793 44170  | .9545 32385  |
| .2904  | .9609 45836  | .2767 36519  | .6795 39632  | .9547 00329  |
| 1.2905 | 0.9609 73505 | 0.2766 40423 | 1.6797 35111 | 1.9548 68293 |
| .2906  | .9610 01164  | .2765 44324  | .6799 30606  | .9550 36276  |
| .2907  | .9610 28813  | .2764 48223  | .6801 26118  | .9552 04279  |
| .2908  | .9610 56453  | .2763 52118  | .6803 21647  | .9553 72301  |
| .2909  | .9610 84084  | .2762 56011  | .6805 17192  | .9555 40343  |
| 1.2910 | 0.9611 11705 | 0.2761 59902 | 1.6807 12755 | 1.9557 08405 |
| .2911  | .9611 39316  | .2760 63789  | .6809 08334  | .9558 76486  |
| .2912  | .9611 66917  | .2759 67674  | .6811 03930  | .9560 44586  |
| .2913  | .9611 94509  | .2758 71556  | .6812 99543  | .9562 12706  |
| .2914  | .9612 22092  | .2757 75435  | .6814 95173  | .9563 80846  |
| 1.2915 | 0.9612 49664 | 0.2756 79311 | 1.6816 90819 | 1.9565 49005 |
| .2916  | .9612 77228  | .2755 83185  | .6818 86482  | .9567 17184  |
| .2917  | .9613 04781  | .2754 87056  | .6820 82162  | .9568 85383  |
| .2918  | .9613 32325  | .2753 90924  | .6822 77859  | .9570 53601  |
| .2919  | .9613 59859  | .2752 94789  | .6824 73573  | .9572 21838  |
| 1.2920 | 0.9613 87384 | 0.2751 98652 | 1.6826 69304 | 1.9573 90095 |
| .2921  | .9614 14899  | .2751 02512  | .6828 65051  | .9575 58372  |
| .2922  | .9614 42404  | .2750 06369  | .6830 60815  | .9577 26669  |
| .2923  | .9614 69900  | .2749 10223  | .6832 56597  | .9578 94984  |
| .2924  | .9614 97386  | .2748 14075  | .6834 52394  | .9580 63320  |
| 1.2925 | 0.9615 24863 | 0.2747 17924 | 1.6836 48209 | 1.9582 31675 |
| .2926  | .9615 52330  | .2746 21770  | .6838 44041  | .9584 00049  |
| .2927  | .9615 79787  | .2745 25613  | .6840 39889  | .9585 68444  |
| .2928  | .9616 07235  | .2744 29454  | .6842 35754  | .9587 36857  |
| .2929  | .9616 34673  | .2743 33292  | .6844 31637  | .9589 05291  |
| 1.2930 | 0.9616 62102 | 0.2742 37127 | 1.6846 27536 | 1.9590 73744 |
| .2931  | .9616 89521  | .2741 40960  | .6848 23451  | .9592 42216  |
| .2932  | .9617 16930  | .2740 44789  | .6850 19384  | .9594 10708  |
| .2933  | .9617 44330  | .2739 48616  | .6852 15333  | .9595 79220  |
| .2934  | .9617 71720  | .2738 52440  | .6854 11300  | .9597 47752  |
| 1.2935 | 0.9617 99100 | 0.2737 56262 | 1.6856 07283 | 1.9599 16302 |
| .2936  | .9618 26471  | .2736 60081  | .6858 03283  | .9600 84873  |
| .2937  | .9618 53832  | .2735 63897  | .6859 99300  | .9602 53463  |
| .2938  | .9618 81184  | .2734 67710  | .6861 95334  | .9604 22073  |
| .2939  | .9619 08526  | .2733 71520  | .6863 91384  | .9605 90702  |
| 1.2940 | 0.9619 35858 | 0.2732 75328 | 1.6865 87452 | 1.9607 59351 |
| .2941  | .9619 63181  | .2731 79133  | .6867 83536  | .9609 28020  |
| .2942  | .9619 90494  | .2730 82935  | .6869 79638  | .9610 96709  |
| .2943  | .9620 17797  | .2729 86735  | .6871 75756  | .9612 65416  |
| .2944  | .9620 45091  | .2728 90532  | .6873 71891  | .9614 34143  |
| 1.2945 | 0.9620 72375 | 0.2727 94326 | 1.6875 68042 | 1.9616 02890 |
| .2946  | .9620 99650  | .2726 98117  | .6877 64211  | .9617 71657  |
| .2947  | .9621 26915  | .2726 01906  | .6879 60397  | .9619 40443  |
| .2948  | .9621 54170  | .2725 05692  | .6881 56599  | .9621 09249  |
| .2949  | .9621 81416  | .2724 09475  | .6883 52819  | .9622 78074  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.2950 | 0.9622 08652 | 0.2723 13256 | 1.6885 49055 | 1.9624 46919 |
| .2951  | .9622 35879  | .2722 17034  | .6887 45308  | .9626 15784  |
| .2952  | .9622 63096  | .2721 20809  | .6889 41578  | .9627 84668  |
| .2953  | .9622 90303  | .2720 24581  | .6891 37865  | .9629 53572  |
| .2954  | .9623 17501  | .2719 28351  | .6893 34169  | .9631 22496  |
| 1.2955 | 0.9623 44689 | 0.2718 32117 | 1.6895 30489 | 1.9632 91439 |
| .2956  | .9623 71867  | .2717 35882  | .6897 26827  | .9634 60402  |
| .2957  | .9623 99036  | .2716 39643  | .6899 23182  | .9636 29384  |
| .2958  | .9624 26195  | .2715 43402  | .6901 19553  | .9637 98387  |
| .2959  | .9624 53345  | .2714 47158  | .6903 15941  | .9639 67408  |
| 1.2960 | 0.9624 80485 | 0.2713 50911 | 1.6905 12346 | 1.9641 36450 |
| .2961  | .9625 07615  | .2712 54662  | .6907 08769  | .9643 05511  |
| .2962  | .9625 34735  | .2711 58410  | .6909 05208  | .9644 74592  |
| .2963  | .9625 61846  | .2710 62155  | .6911 01663  | .9646 43692  |
| .2964  | .9625 88948  | .2709 65897  | .6912 98136  | .9648 12812  |
| 1.2965 | 0.9626 16040 | 0.2708 69637 | 1.6914 94626 | 1.9649 81952 |
| .2966  | .9626 43122  | .2707 73374  | .6916 91133  | .9651 51111  |
| .2967  | .9626 70194  | .2706 77108  | .6918 87656  | .9653 20290  |
| .2968  | .9626 97257  | .2705 80840  | .6920 84197  | .9654 89488  |
| .2969  | .9627 24310  | .2704 84569  | .6922 80754  | .9656 58707  |
| 1.2970 | 0.9627 51354 | 0.2703 88295 | 1.6924 77328 | 1.9658 27944 |
| .2971  | .9627 78388  | .2702 92019  | .6926 73920  | .9659 97202  |
| .2972  | .9628 05413  | .2701 95739  | .6928 70528  | .9661 66479  |
| .2973  | .9628 32427  | .2700 99458  | .6930 67153  | .9663 35776  |
| .2974  | .9628 59432  | .2700 03173  | .6932 63795  | .9665 05093  |
| 1.2975 | 0.9628 86428 | 0.2699 06886 | 1.6934 60454 | 1.9666 74429 |
| .2976  | .9629 13414  | .2698 10596  | .6936 57130  | .9668 43785  |
| .2977  | .9629 40390  | .2697 14303  | .6938 53823  | .9670 13160  |
| .2978  | .9629 67357  | .2696 18008  | .6940 50533  | .9671 82556  |
| .2979  | .9629 94314  | .2695 21709  | .6942 47259  | .9673 51970  |
| 1.2980 | 0.9630 21261 | 0.2694 25409 | 1.6944 44003 | 1.9675 21405 |
| .2981  | .9630 48199  | .2693 29105  | .6946 40764  | .9676 90859  |
| .2982  | .9630 75127  | .2692 32799  | .6948 37541  | .9678 60333  |
| .2983  | .9631 02045  | .2691 36490  | .6950 34336  | .9680 29827  |
| .2984  | .9631 28954  | .2690 40179  | .6952 31147  | .9681 99340  |
| 1.2985 | 0.9631 55853 | 0.2689 43864 | 1.6954 27976 | 1.9683 68873 |
| .2986  | .9631 82743  | .2688 47547  | .6956 24821  | .9685 38426  |
| .2987  | .9632 09623  | .2687 51228  | .6958 21683  | .9687 07998  |
| .2988  | .9632 36493  | .2686 54906  | .6960 18562  | .9688 77590  |
| .2989  | .9632 63354  | .2685 58581  | .6962 15459  | .9690 47202  |
| 1.2990 | 0.9632 90205 | 0.2684 62253 | 1.6964 12372 | 1.9692 16833 |
| .2991  | .9633 17046  | .2683 65923  | .6966 09302  | .9693 86484  |
| .2992  | .9633 43878  | .2682 69589  | .6968 06249  | .9695 56155  |
| .2993  | .9633 70700  | .2681 73254  | .6970 03213  | .9697 25845  |
| .2994  | .9633 97513  | .2680 76915  | .6972 00194  | .9699 95556  |
| 1.2995 | 0.9634 24316 | 0.2679 80574 | 1.6973 97192 | 1.9700 65285 |
| .2996  | .9634 51109  | .2678 84250  | .6975 94207  | .9702 35035  |
| .2997  | .9634 77892  | .2677 87884  | .6977 91239  | .9704 04804  |
| .2998  | .9635 04666  | .2676 91535  | .6979 88288  | .9705 74593  |
| .2999  | .9635 31431  | .2675 95183  | .6981 85354  | .9707 44402  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.3000 | 0.9635 58185 | 0.2674 98829 | 1.6983 82437 | 1.9709 14230 |
| .3001  | .9635 84930  | .2674 02471  | .6985 79537  | .9710 84078  |
| .3002  | .9636 11666  | .2673 06112  | .6987 76654  | .9712 53946  |
| .3003  | .9636 38392  | .2672 09749  | .6989 73788  | .9714 23834  |
| .3004  | .9636 65108  | .2671 13384  | .6991 70939  | .9715 93741  |
| 1.3005 | 0.9636 91814 | 0.2670 17016 | 1.6993 68107 | 1.9717 63668 |
| .3006  | .9637 18511  | .2669 20646  | .6995 65292  | .9719 33615  |
| .3007  | .9637 45199  | .2668 24272  | .6997 62493  | .9721 03581  |
| .3008  | .9637 71876  | .2667 27897  | .6999 59712  | .9722 73567  |
| .3009  | .9637 98544  | .2666 31518  | .7001 56948  | .9724 43573  |
| 1.3010 | 0.9638 25202 | 0.2665 35137 | 1.7003 54201 | 1.9726 13599 |
| .3011  | .9638 51851  | .2664 38753  | .7005 51471  | .9727 83644  |
| .3012  | .9638 78490  | .2663 42366  | .7007 48758  | .9729 53709  |
| .3013  | .9639 05120  | .2662 45977  | .7009 46062  | .9731 23794  |
| .3014  | .9639 31739  | .2661 49585  | .7011 43383  | .9732 93898  |
| 1.3015 | 0.9639 58350 | 0.2660 53191 | 1.7013 40720 | 1.9734 64022 |
| .3016  | .9639 84950  | .2659 56794  | .7015 38075  | .9736 34166  |
| .3017  | .9640 11541  | .2658 60394  | .7017 35447  | .9738 04330  |
| .3018  | .9640 38122  | .2657 63991  | .7019 32836  | .9739 74513  |
| .3019  | .9640 64694  | .2656 67586  | .7021 30242  | .9741 44716  |
| 1.3020 | 0.9640 91256 | 0.2655 71179 | 1.7023 27665 | 1.9743 14939 |
| .3021  | .9641 17808  | .2654 74768  | .7025 25105  | .9744 85182  |
| .3022  | .9641 44351  | .2653 78355  | .7027 22562  | .9746 55444  |
| .3023  | .9641 70884  | .2652 81939  | .7029 20036  | .9748 25726  |
| .3024  | .9641 97407  | .2651 85521  | .7031 17527  | .9749 96028  |
| 1.3025 | 0.9642 23921 | 0.2650 89100 | 1.7033 15035 | 1.9751 66350 |
| .3026  | .9642 50425  | .2649 92676  | .7035 12561  | .9753 36691  |
| .3027  | .9642 76919  | .2648 96250  | .7037 10103  | .9755 07052  |
| .3028  | .9643 03404  | .2647 99821  | .7039 07662  | .9756 77433  |
| .3029  | .9643 29879  | .2647 03389  | .7041 05238  | .9758 47834  |
| 1.3030 | 0.9643 56345 | 0.2646 06955 | 1.7043 02832 | 1.9760 18254 |
| .3031  | .9643 82801  | .2645 10518  | .7045 00442  | .9761 88695  |
| .3032  | .9644 09247  | .2644 14078  | .7046 98069  | .9763 59154  |
| .3033  | .9644 35683  | .2643 17636  | .7048 95714  | .9765 29634  |
| .3034  | .9644 62110  | .2642 21191  | .7050 93375  | .9767 00134  |
| 1.3035 | 0.9644 88528 | 0.2641 24743 | 1.7052 91054 | 1.9768 70653 |
| .3036  | .9645 14935  | .2640 28293  | .7054 88749  | .9770 41192  |
| .3037  | .9645 41333  | .2639 31840  | .7056 86462  | .9772 11751  |
| .3038  | .9645 67722  | .2638 35385  | .7058 84192  | .9773 82329  |
| .3039  | .9645 94100  | .2637 38927  | .7060 81938  | .9775 52927  |
| 1.3040 | 0.9646 20469 | 0.2636 42466 | 1.7062 79702 | 1.9777 23546 |
| .3041  | .9646 46829  | .2635 46003  | .7064 77483  | .9778 94183  |
| .3042  | .9646 73179  | .2634 49537  | .7066 75281  | .9780 64841  |
| .3043  | .9646 99519  | .2633 53068  | .7068 73096  | .9782 35518  |
| .3044  | .9647 25849  | .2632 56597  | .7070 70928  | .9784 06216  |
| 1.3045 | 0.9647 52170 | 0.2631 60123 | 1.7072 68777 | 1.9785 76933 |
| .3046  | .9647 78481  | .2630 63646  | .7074 66644  | .9787 47669  |
| .3047  | .9648 04783  | .2629 67167  | .7076 64527  | .9789 18426  |
| .3048  | .9648 31075  | .2628 70686  | .7078 62427  | .9790 89202  |
| .3049  | .9648 57357  | .2627 74201  | .7080 60345  | .9792 59998  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.3050 | 0.9648 83630 | 0.2626 77714 | 1.7082 58279 | 1.9794 30814 |
| .3051  | .9649 09892  | .2625 81224  | .7084 56231  | .9796 01650  |
| .3052  | .9649 36146  | .2624 84732  | .7086 54200  | .9797 72506  |
| .3053  | .9649 62389  | .2623 88237  | .7088 52185  | .9799 43381  |
| .3054  | .9649 88623  | .2622 91740  | .7090 50188  | .9801 14276  |
| 1.3055 | 0.9650 14848 | 0.2621 95239 | 1.7092 48208 | 1.9802 85191 |
| .3056  | .9650 41062  | .2620 98737  | .7094 46245  | .9804 56126  |
| .3057  | .9650 67268  | .2620 02231  | .7096 44300  | .9806 27080  |
| .3058  | .9650 93463  | .2619 05723  | .7098 42371  | .9807 98055  |
| .3059  | .9651 19649  | .2618 09213  | .7100 40459  | .9809 69049  |
| 1.3060 | 0.9651 45825 | 0.2617 12699 | 1.7102 38565 | 1.9811 40063 |
| .3061  | .9651 71991  | .2616 16183  | .7104 36637  | .9813 11096  |
| .3062  | .9651 98148  | .2615 19665  | .7106 34827  | .9814 82150  |
| .3063  | .9652 24295  | .2614 23144  | .7108 32984  | .9816 53223  |
| .3064  | .9652 50433  | .2613 26620  | .7110 31157  | .9818 24317  |
| 1.3065 | 0.9652 76560 | 0.2612 30094 | 1.7112 29348 | 1.9819 95430 |
| .3066  | .9653 02679  | .2611 33565  | .7114 27557  | .9821 66562  |
| .3067  | .9653 28787  | .2610 37033  | .7116 25782  | .9823 37715  |
| .3068  | .9653 54886  | .2609 40499  | .7118 24024  | .9825 08888  |
| .3069  | .9653 80975  | .2608 43962  | .7120 22284  | .9826 80080  |
| 1.3070 | 0.9654 07055 | 0.2607 47423 | 1.7122 20560 | 1.9828 51292 |
| .3071  | .9654 33125  | .2606 50881  | .7124 18854  | .9830 22524  |
| .3072  | .9654 59185  | .2605 54336  | .7126 17165  | .9831 93776  |
| .3073  | .9654 85236  | .2604 57789  | .7128 15493  | .9833 65047  |
| .3074  | .9655 11277  | .2603 61239  | .7130 13838  | .9835 36339  |
| 1.3075 | 0.9655 37308 | 0.2602 64687 | 1.7132 12200 | 1.9837 07650 |
| .3076  | .9655 63330  | .2601 68132  | .7134 10579  | .9838 78981  |
| .3077  | .9655 89342  | .2600 71574  | .7136 08976  | .9840 50332  |
| .3078  | .9656 15344  | .2599 75014  | .7138 07389  | .9842 21703  |
| .3079  | .9656 41337  | .2598 78451  | .7140 05820  | .9843 93094  |
| 1.3080 | 0.9656 67320 | 0.2597 81885 | 1.7142 04268 | 1.9845 64504 |
| .3081  | .9656 93293  | .2596 85317  | .7144 02733  | .9847 35935  |
| .3082  | .9657 19257  | .2595 88747  | .7146 01215  | .9849 07385  |
| .3083  | .9657 45211  | .2594 92174  | .7147 99714  | .9850 78855  |
| .3084  | .9657 71155  | .2593 95598  | .7149 98231  | .9852 50345  |
| 1.3085 | 0.9657 97090 | 0.2592 99019 | 1.7151 96764 | 1.9854 21855 |
| .3086  | .9658 23015  | .2592 02438  | .7153 95315  | .9855 93384  |
| .3087  | .9658 48930  | .2591 05855  | .7155 93883  | .9857 64934  |
| .3088  | .9658 74836  | .2590 09269  | .7157 92468  | .9859 36503  |
| .3089  | .9659 00732  | .2589 12680  | .7159 91070  | .9861 08092  |
| 1.3090 | 0.9659 26619 | 0.2588 16088 | 1.7161 89690 | 1.9862 79701 |
| .3091  | .9659 52495  | .2587 19494  | .7163 88326  | .9864 51330  |
| .3092  | .9659 78362  | .2586 22898  | .7165 86980  | .9866 22979  |
| .3093  | .9660 04220  | .2585 26299  | .7167 85651  | .9867 94647  |
| .3094  | .9660 30068  | .2584 29697  | .7169 84339  | .9869 66336  |
| 1.3095 | 0.9660 55906 | 0.2583 33093 | 1.7171 83044 | 1.9871 38044 |
| .3096  | .9660 81734  | .2582 36486  | .7173 81767  | .9873 09773  |
| .3097  | .9661 07553  | .2581 39876  | .7175 80506  | .9874 81521  |
| .3098  | .9661 33362  | .2580 43264  | .7177 79263  | .9876 53289  |
| .3099  | .9661 59162  | .2579 46650  | .7179 78037  | .9878 25077  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.3100 | 0.9661 84952 | 0.2578 50033 | 1.7181 76828 | 1.9879 96884 |
| .3101  | .9662 10732  | .2577 53413  | .7183 75636  | .9881 68712  |
| .3102  | .9662 36502  | .2576 56790  | .7185 74462  | .9883 40559  |
| .3103  | .9662 62263  | .2575 60165  | .7187 73304  | .9885 12427  |
| .3104  | .9662 88014  | .2574 63538  | .7189 72164  | .9886 84314  |
| 1.3105 | 0.9663 13756 | 0.2573 66908 | 1.7191 71041 | 1.9888 56221 |
| .3106  | .9663 39488  | .2572 70275  | .7193 69935  | .9890 28148  |
| .3107  | .9663 65210  | .2571 73640  | .7195 68847  | .9892 00095  |
| .3108  | .9663 90922  | .2570 77002  | .7197 67775  | .9893 72062  |
| .3109  | .9664 16625  | .2569 80362  | .7199 66721  | .9895 44049  |
| 1.3110 | 0.9664 42319 | 0.2568 83719 | 1.7201 65684 | 1.9897 16055 |
| .3111  | .9664 68002  | .2567 87073  | .7203 64664  | .9898 88082  |
| .3112  | .9664 93676  | .2566 90425  | .7205 63662  | .9900 60128  |
| .3113  | .9665 19340  | .2565 93775  | .7207 62676  | .9902 32195  |
| .3114  | .9665 44995  | .2564 97121  | .7209 61708  | .9904 04221  |
| 1.3115 | 0.9665 70640 | 0.2564 00466 | 1.7211 60757 | 1.9905 76387 |
| .3116  | .9665 96275  | .2563 03807  | .7213 59824  | .9907 48513  |
| .3117  | .9666 21900  | .2562 07146  | .7215 58907  | .9909 20659  |
| .3118  | .9666 47516  | .2561 10483  | .7217 58008  | .9910 92825  |
| .3119  | .9666 73122  | .2560 13817  | .7219 57126  | .9912 65011  |
| 1.3120 | 0.9666 98719 | 0.2559 17148 | 1.7221 56261 | 1.9914 37216 |
| .3121  | .9667 24306  | .2558 20477  | .7223 55413  | .9916 09442  |
| .3122  | .9667 49835  | .2557 23803  | .7225 54583  | .9917 81687  |
| .3123  | .9667 75451  | .2556 27127  | .7227 53769  | .9919 53953  |
| .3124  | .9668 01008  | .2555 30448  | .7229 52973  | .9921 26238  |
| 1.3125 | 0.9668 26557 | 0.2554 33767 | 1.7231 52195 | 1.9922 98543 |
| .3126  | .9668 52095  | .2553 37083  | .7233 51433  | .9924 70869  |
| .3127  | .9668 77624  | .2552 40396  | .7235 50689  | .9926 43214  |
| .3128  | .9669 03143  | .2551 43707  | .7237 49962  | .9928 15579  |
| .3129  | .9669 28653  | .2550 47016  | .7239 49252  | .9929 87964  |
| 1.3130 | 0.9669 54153 | 0.2549 50322 | 1.7241 48559 | 1.9931 60369 |
| .3131  | .9669 79643  | .2548 53625  | .7243 47884  | .9933 32793  |
| .3132  | .9670 05123  | .2547 56926  | .7245 47226  | .9935 05238  |
| .3133  | .9670 30594  | .2546 60224  | .7247 46585  | .9936 77703  |
| .3134  | .9670 56055  | .2545 63520  | .7249 45961  | .9938 50187  |
| 1.3135 | 0.9670 81507 | 0.2544 66813 | 1.7251 45355 | 1.9940 22692 |
| .3136  | .9671 06949  | .2543 70103  | .7253 44766  | .9941 95216  |
| .3137  | .9671 32381  | .2542 73391  | .7255 44194  | .9943 67761  |
| .3138  | .9671 57804  | .2541 76677  | .7257 43640  | .9945 40325  |
| .3139  | .9671 83216  | .2540 79960  | .7259 43102  | .9947 12910  |
| 1.3140 | 0.9672 08620 | 0.2539 83240 | 1.7261 42582 | 1.9948 85514 |
| .3141  | .9672 34013  | .2538 86518  | .7263 42079  | .9950 58138  |
| .3142  | .9672 59397  | .2537 89793  | .7265 41594  | .9952 30782  |
| .3143  | .9672 84771  | .2536 93066  | .7267 41125  | .9954 03446  |
| .3144  | .9673 10135  | .2535 96336  | .7269 40674  | .9955 76131  |
| 1.3145 | 0.9673 35490 | 0.2534 99604 | 1.7271 40241 | 1.9957 48835 |
| .3146  | .9673 60835  | .2534 02869  | .7273 39824  | .9959 21559  |
| .3147  | .9673 86171  | .2533 06132  | .7275 39425  | .9960 94303  |
| .3148  | .9674 11497  | .2532 09392  | .7277 39043  | .9962 67067  |
| .3149  | .9674 36813  | .2531 12650  | .7279 38678  | .9964 39850  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.3150 | 0.9674 62119 | 0.2530 15905 | 1.7281 38331 | 1.9966 12654 |
| .3151  | .9674 87416  | .2529 19157  | .7283 38001  | .9967 85478  |
| .3152  | .9675 12703  | .2528 22407  | .7285 37688  | .9969 58322  |
| .3153  | .9675 37980  | .2527 25655  | .7287 37393  | .9971 31186  |
| .3154  | .9675 63248  | .2526 28900  | .7289 37114  | .9973 04069  |
| 1.3155 | 0.9675 88506 | 0.2525 32142 | 1.7291 36853 | 1.9974 76973 |
| .3156  | .9676 13755  | .2524 35382  | .7293 36610  | .9976 49897  |
| .3157  | .9676 38993  | .2523 38619  | .7295 36383  | .9978 22840  |
| .3158  | .9676 64222  | .2522 41854  | .7297 36174  | .9979 95804  |
| .3159  | .9676 89442  | .2521 45087  | .7299 35983  | .9981 68788  |
| 1.3160 | 0.9677 14651 | 0.2520 48316 | 1.7301 35808 | 1.9983 41791 |
| .3161  | .9677 39851  | .2519 51544  | .7303 35651  | .9985 14815  |
| .3162  | .9677 65042  | .2518 54768  | .7305 35511  | .9986 87858  |
| .3163  | .9677 90222  | .2517 57991  | .7307 35388  | .9988 60922  |
| .3164  | .9678 15393  | .2516 61210  | .7309 35283  | .9990 34005  |
| 1.3165 | 0.9678 40554 | 0.2515 64428 | 1.7311 35195 | 1.9992 07109 |
| .3166  | .9678 65706  | .2514 67642  | .7313 35125  | .9993 80232  |
| .3167  | .9678 90848  | .2513 70854  | .7315 35071  | .9995 53376  |
| .3168  | .9679 15980  | .2512 74064  | .7317 35035  | .9997 26539  |
| .3169  | .9679 41103  | .2511 77271  | .7319 35017  | .9998 99723  |
| 1.3170 | 0.9679 66216 | 0.2510 80476 | 1.7321 35015 | 2.0000 72926 |
| .3171  | .9679 91319  | .2509 83678  | .7323 35031  | .0002 46150  |
| .3172  | .9680 16412  | .2508 86878  | .7325 35064  | .0004 19393  |
| .3173  | .9680 41496  | .2507 90075  | .7327 35115  | .0005 92657  |
| .3174  | .9680 66570  | .2506 93269  | .7329 35183  | .0007 65940  |
| 1.3175 | 0.9680 91635 | 0.2505 96461 | 1.7331 35268 | 2.0009 39244 |
| .3176  | .9681 16690  | .2504 99651  | .7333 35371  | .0011 12568  |
| .3177  | .9681 41735  | .2504 02838  | .7335 35491  | .0012 85911  |
| .3178  | .9681 66770  | .2503 06023  | .7337 35628  | .0014 59275  |
| .3179  | .9681 91796  | .2502 09205  | .7339 35783  | .0016 32658  |
| 1.3180 | 0.9682 16812 | 0.2501 12384 | 1.7341 35955 | 2.0018 06062 |
| .3181  | .9682 41819  | .2500 15561  | .7343 36144  | .0019 79485  |
| .3182  | .9682 66815  | .2499 18736  | .7345 36350  | .0021 52929  |
| .3183  | .9682 91802  | .2498 21908  | .7347 36574  | .0023 26393  |
| .3184  | .9683 16780  | .2497 25077  | .7349 36816  | .0024 99876  |
| 1.3185 | 0.9683 41747 | 0.2496 28245 | 1.7351 37074 | 2.0026 73380 |
| .3186  | .9683 66705  | .2495 31409  | .7353 37350  | .0028 46904  |
| .3187  | .9683 91654  | .2494 34571  | .7355 37644  | .0030 20447  |
| .3188  | .9684 16592  | .2493 37731  | .7357 37955  | .0031 94011  |
| .3189  | .9684 41521  | .2492 40888  | .7359 38283  | .0033 67595  |
| 1.3190 | 0.9684 66440 | 0.2491 44043 | 1.7361 38628 | 2.0035 41199 |
| .3191  | .9684 91350  | .2490 47195  | .7363 38991  | .0037 14823  |
| .3192  | .9685 16250  | .2489 50344  | .7365 39371  | .0038 88467  |
| .3193  | .9685 41140  | .2488 53491  | .7367 39769  | .0040 62131  |
| .3194  | .9685 66020  | .2487 56636  | .7369 40183  | .0042 35815  |
| 1.3195 | 0.9685 90891 | 0.2486 59778 | 1.7371 40616 | 2.0044 09519 |
| .3196  | .9686 15752  | .2485 62918  | .7373 41065  | .0045 83243  |
| .3197  | .9686 40604  | .2484 66055  | .7375 41532  | .0047 56987  |
| .3198  | .9686 65446  | .2483 69190  | .7377 42017  | .0049 30751  |
| .3199  | .9686 90278  | .2482 72322  | .7379 42519  | .0051 04535  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.3200 | 0.9687 15100 | 0.2461 75452 | 1.7381 43038 | 2.0052 78340 |
| .3201  | .9687 39913  | .2480 78579  | .7383 43574  | .0054 52164  |
| .3202  | .9687 64716  | .2479 81704  | .7385 44128  | .0056 26008  |
| .3203  | .9687 89509  | .2478 84826  | .7387 44699  | .0057 99873  |
| .3204  | .9688 14293  | .2477 87946  | .7389 45288  | .0059 73757  |
| 1.3205 | 0.9688 39067 | 0.2476 91063 | 1.7391 45894 | 2.0061 47662 |
| .3206  | .9688 63831  | .2475 94178  | .7393 46518  | .0063 21586  |
| .3207  | .9688 88586  | .2474 97290  | .7395 47158  | .0064 95531  |
| .3208  | .9689 13330  | .2474 00400  | .7397 47817  | .0066 69496  |
| .3209  | .9689 38066  | .2473 03508  | .7399 48492  | .0068 43481  |
| 1.3210 | 0.9689 62791 | 0.2472 06613 | 1.7401 49185 | 2.0070 17486 |
| .3211  | .9689 87507  | .2471 09715  | .7403 49896  | .0071 91511  |
| .3212  | .9690 12213  | .2470 12815  | .7405 50624  | .0073 65556  |
| .3213  | .9690 36910  | .2469 15913  | .7407 51369  | .0075 39621  |
| .3214  | .9690 61596  | .2468 19008  | .7409 52132  | .0077 13706  |
| 1.3215 | 0.9690 86273 | 0.2467 22100 | 1.7411 52912 | 2.0078 87811 |
| .3216  | .9691 10941  | .2466 25190  | .7413 53709  | .0080 61936  |
| .3217  | .9691 35598  | .2465 28278  | .7415 54524  | .0082 36082  |
| .3218  | .9691 60246  | .2464 31363  | .7417 55356  | .0084 10247  |
| .3219  | .9691 84885  | .2463 34446  | .7419 56206  | .0086 84433  |
| 1.3220 | 0.9692 09513 | 0.2462 37526 | 1.7421 57073 | 2.0087 58639 |
| .3221  | .9692 34132  | .2461 40604  | .7423 57958  | .0089 32864  |
| .3222  | .9692 58741  | .2460 43680  | .7425 58860  | .0091 07110  |
| .3223  | .9692 83341  | .2459 46752  | .7427 59779  | .0092 81376  |
| .3224  | .9693 07931  | .2458 49823  | .7429 60716  | .0094 55662  |
| 1.3225 | 0.9693 32511 | 0.2457 52891 | 1.7431 61670 | 2.0096 29968 |
| .3226  | .9693 57081  | .2456 55956  | .7433 62642  | .0098 04294  |
| .3227  | .9693 81642  | .2455 59019  | .7435 63631  | .0099 78641  |
| .3228  | .9694 06193  | .2454 62080  | .7437 64638  | .0101 53007  |
| .3229  | .9694 30734  | .2453 65138  | .7439 65662  | .0103 27394  |
| 1.3230 | 0.9694 55266 | 0.2452 68194 | 1.7441 66703 | 2.0105 01800 |
| .3231  | .9694 79788  | .2451 71247  | .7443 67762  | .0106 76227  |
| .3232  | .9695 04300  | .2450 74298  | .7445 68839  | .0108 50674  |
| .3233  | .9695 28803  | .2449 77346  | .7447 69932  | .0110 25141  |
| .3234  | .9695 53296  | .2448 80392  | .7449 71044  | .0111 99628  |
| 1.3235 | 0.9695 77779 | 0.2447 83436 | 1.7451 72172 | 2.0113 74135 |
| .3236  | .9696 02253  | .2446 86477  | .7453 73318  | .0115 48662  |
| .3237  | .9696 26716  | .2445 89515  | .7455 74482  | .0117 2321C  |
| .3238  | .9696 51170  | .2444 92551  | .7457 75663  | .0118 97777  |
| .3239  | .9696 75615  | .2443 95585  | .7459 76862  | .0120 72365  |
| 1.3240 | 0.9697 00050 | 0.2442 98616 | 1.7461 78078 | 2.0122 46973 |
| .3241  | .9697 24475  | .2442 01645  | .7463 79311  | .0124 21600  |
| .3242  | .9697 48890  | .2441 04671  | .7465 80562  | .0125 96248  |
| .3243  | .9697 73296  | .2440 07695  | .7467 81830  | .0127 70917  |
| .3244  | .9697 97691  | .2439 10717  | .7469 83116  | .0129 45605  |
| 1.3245 | 0.9698 22078 | 0.2438 13736 | 1.7471 84419 | 2.0131 20313 |
| .3246  | .9698 46454  | .2437 16752  | .7473 85740  | .0132 95042  |
| .3247  | .9698 70821  | .2436 19766  | .7475 87078  | .0134 69790  |
| .3248  | .9698 95178  | .2435 22778  | .7477 88434  | .0136 44559  |
| .3249  | .9699 19526  | .2434 25787  | .7479 89807  | .0138 19346  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.3250 | 0.9699 43663 | 0.2433 28794 | 1.7481 91198 | 2.0139 94157 |
| .3251  | .9699 68191  | .2432 31799  | .7483 92606  | .0141 68986  |
| .3252  | .9699 92510  | .2431 34801  | .7485 94032  | .0143 43836  |
| .3253  | .9700 16818  | .2430 37800  | .7487 95475  | .0145 18705  |
| .3254  | .9700 41117  | .2429 40797  | .7489 96935  | .0146 93595  |
| 1.3255 | 0.9700 65406 | 0.2428 43792 | 1.7491 98414 | 2.0148 68504 |
| .3256  | .9700 89686  | .2427 46784  | .7493 99909  | .0150 43434  |
| .3257  | .9701 13956  | .2426 49774  | .7496 01422  | .0152 18384  |
| .3258  | .9701 38216  | .2425 52761  | .7498 02953  | .0153 93355  |
| .3259  | .9701 62466  | .2424 55746  | .7500 04501  | .0155 68345  |
| 1.3260 | 0.9701 86707 | 0.2423 58729 | 1.7502 06067 | 2.0157 43356 |
| .3261  | .9702 10938  | .2422 61709  | .7504 07650  | .0159 18386  |
| .3262  | .9702 35159  | .2421 64687  | .7506 09250  | .0160 93437  |
| .3263  | .9702 59371  | .2420 67662  | .7508 10868  | .0162 68508  |
| .3264  | .9702 83573  | .2419 70635  | .7510 12504  | .0164 43599  |
| 1.3265 | 0.9703 07765 | 0.2418 73605 | 1.7512 14157 | 2.0166 18711 |
| .3266  | .9703 31948  | .2417 76573  | .7514 15828  | .0167 93842  |
| .3267  | .9703 56120  | .2416 79539  | .7516 17516  | .0169 68994  |
| .3268  | .9703 80284  | .2415 82502  | .7518 19221  | .0171 44166  |
| .3269  | .9704 04437  | .2414 85463  | .7520 20945  | .0173 19358  |
| 1.3270 | 0.9704 28581 | 0.2413 88421 | 1.7522 22685 | 2.0174 94570 |
| .3271  | .9704 52715  | .2412 91377  | .7524 24444  | .0176 69802  |
| .3272  | .9704 76839  | .2411 94331  | .7526 26219  | .0178 45055  |
| .3273  | .9705 00954  | .2410 97282  | .7528 28013  | .0180 20327  |
| .3274  | .9705 25058  | .2410 00230  | .7530 29823  | .0181 95620  |
| 1.3275 | 0.9705 49154 | 0.2409 03177 | 1.7532 31652 | 2.0183 70933 |
| .3276  | .9705 73239  | .2408 06120  | .7534 33498  | .0185 46267  |
| .3277  | .9705 97315  | .2407 09062  | .7536 35361  | .0187 21620  |
| .3278  | .9706 21381  | .2406 12001  | .7538 37242  | .0188 96994  |
| .3279  | .9706 45437  | .2405 14938  | .7540 39140  | .0190 72387  |
| 1.3280 | 0.9706 69484 | 0.2404 17872 | 1.7542 41056 | 2.0192 47801 |
| .3281  | .9706 93521  | .2403 20804  | .7544 42990  | .0194 23236  |
| .3282  | .9707 17548  | .2402 23733  | .7546 44941  | .0195 98690  |
| .3283  | .9707 41566  | .2401 26660  | .7548 46910  | .0197 74165  |
| .3284  | .9707 65573  | .2400 29585  | .7550 48896  | .0199 49659  |
| 1.3285 | 0.9707 89571 | 0.2399 32507 | 1.7552 50900 | 2.0201 25174 |
| .3286  | .9708 13560  | .2398 35427  | .7554 52921  | .0203 00710  |
| .3287  | .9708 37539  | .2397 38344  | .7556 54960  | .0204 76265  |
| .3288  | .9708 61507  | .2396 41260  | .7558 57016  | .0206 51841  |
| .3289  | .9708 85467  | .2395 44172  | .7560 59090  | .0208 27436  |
| 1.3290 | 0.9709 09416 | 0.2394 47082 | 1.7562 61182 | 2.0210 03052 |
| .3291  | .9709 33356  | .2393 49990  | .7564 63291  | .0211 78689  |
| .3292  | .9709 57286  | .2392 52896  | .7566 65417  | .0213 54345  |
| .3293  | .9709 81207  | .2391 55799  | .7568 67562  | .0215 30022  |
| .3294  | .9710 05117  | .2390 58699  | .7570 69723  | .0217 05719  |
| 1.3295 | 0.9710 29019 | 0.2389 61598 | 1.7572 71903 | 2.0218 81436 |
| .3296  | .9710 52910  | .2388 64494  | .7574 74100  | .0220 57173  |
| .3297  | .9710 76791  | .2387 67387  | .7576 76314  | .0222 32931  |
| .3298  | .9711 00663  | .2386 70278  | .7578 78546  | .0224 08708  |
| .3299  | .9711 24525  | .2385 73167  | .7580 80796  | .0225 84506  |

| x      | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 1.3300 | 0.9711 48378 | 0.2384 76053 | 1.7582 83063 | 2.0227 60324 |
| .3301  | .9711 72221  | .2385 78937  | .7584 85348  | .0229 36163  |
| .3302  | .9711 96054  | .2382 81819  | .7586 87650  | .0231 12022  |
| .3303  | .9712 19877  | .2381 84698  | .7588 89970  | .0232 87900  |
| .3304  | .9712 43691  | .2380 87575  | .7590 92308  | .0234 63799  |
| 1.3305 | 0.9712 67495 | 0.2379 90449 | 1.7592 94663 | 2.0236 39719 |
| .3306  | .9712 91289  | .2378 93322  | .7594 97036  | .0233 15653  |
| .3307  | .9713 15073  | .2377 96191  | .7596 99426  | .0239 91618  |
| .3308  | .9713 38848  | .2376 99059  | .7599 01834  | .0241 67598  |
| .3309  | .9713 62613  | .2376 01923  | .7601 04260  | .0243 43599  |
| 1.3310 | 0.9713 86368 | 0.2375 04786 | 1.7603 06703 | 2.0245 19619 |
| .3311  | .9714 10114  | .2374 07646  | .7605 09164  | .0246 95660  |
| .3312  | .9714 33850  | .2373 10504  | .7607 11642  | .0248 71721  |
| .3313  | .9714 57576  | .2372 13359  | .7609 14138  | .0250 47302  |
| .3314  | .9714 81293  | .2371 16212  | .7611 16652  | .0252 23904  |
| 1.3315 | 0.9715 04999 | 0.2370 19063 | 1.7613 19183 | 2.0254 00026 |
| .3316  | .9715 28696  | .2369 21911  | .7615 21732  | .0255 76168  |
| .3317  | .9715 52384  | .2368 24757  | .7617 24298  | .0257 52330  |
| .3318  | .9715 76061  | .2367 27601  | .7619 26882  | .0259 28513  |
| .3319  | .9715 99729  | .2366 30442  | .7621 29484  | .0261 04715  |
| 1.3320 | 0.9716 23387 | 0.2365 33281 | 1.7623 32103 | 2.0262 80938 |
| .3321  | .9716 47036  | .2364 36117  | .7625 34740  | .0264 57182  |
| .3322  | .9716 70675  | .2363 38952  | .7627 37394  | .0266 33445  |
| .3323  | .9716 94304  | .2362 41783  | .7629 40067  | .0268 09729  |
| .3324  | .9717 17923  | .2361 44613  | .7631 42756  | .0269 86033  |
| 1.3325 | 0.9717 41533 | 0.2360 47440 | 1.7633 45464 | 2.0271 62358 |
| .3326  | .9717 65132  | .2359 50264  | .7635 48189  | .0273 38702  |
| .3327  | .9717 88723  | .2358 53087  | .7637 50932  | .0275 15067  |
| .3328  | .9718 12303  | .2357 55907  | .7639 53692  | .0276 91453  |
| .3329  | .9718 35874  | .2356 58724  | .7641 56470  | .0278 67859  |
| 1.3330 | 0.9718 59435 | 0.2355 61540 | 1.7643 59265 | 2.0280 44284 |
| .3331  | .9718 82986  | .2354 64352  | .7645 62079  | .0282 20730  |
| .3332  | .9719 06528  | .2353 67163  | .7647 64910  | .0283 97196  |
| .3333  | .9719 30060  | .2352 69971  | .7649 67758  | .0285 73683  |
| .3334  | .9719 53582  | .2351 72777  | .7651 70624  | .0287 50190  |
| 1.3335 | 0.9719 77094 | 0.2350 75580 | 1.7653 73508 | 2.0289 26717 |
| .3336  | .9720 00597  | .2349 78382  | .7655 76410  | .0291 03265  |
| .3337  | .9720 24090  | .2348 81180  | .7657 79329  | .0292 79332  |
| .3338  | .9720 47573  | .2347 83977  | .7659 82266  | .0294 56421  |
| .3339  | .9720 71047  | .2346 86771  | .7661 85220  | .0296 33029  |
| 1.3340 | 0.9720 94510 | 0.2345 89562 | 1.7663 88192 | 2.0293 09658 |
| .3341  | .9721 17965  | .2344 92352  | .7665 91182  | .0299 86307  |
| .3342  | .9721 41409  | .2343 95139  | .7667 94190  | .0301 62976  |
| .3343  | .9721 64844  | .2342 97924  | .7669 97215  | .0303 39665  |
| .3344  | .9721 88268  | .2342 00706  | .7672 00257  | .0305 16375  |
| 1.3345 | 0.9722 11684 | 0.2341 03486 | 1.7674 03318 | 2.0306 93105 |
| .3346  | .9722 35089  | .2340 06264  | .7676 06396  | .0308 69356  |
| .3347  | .9722 58485  | .2339 09039  | .7678 09492  | .0310 46627  |
| .3348  | .9722 81871  | .2338 11812  | .7680 12605  | .0312 23418  |
| .3349  | .9723 05247  | .2337 14583  | .7682 15737  | .0314 00229  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 1.3350 | 0.9723 28614 | 0.2336 17351 | 1.7684 13885 | 2.0315 77061 |
| .3351  | .9723 51971  | .2335 20117  | .7686 22052  | .0317 53913  |
| .3352  | .9723 75318  | .2334 22880  | .7688 25236  | .0319 30785  |
| .3353  | .9723 98655  | .2333 25642  | .7690 28438  | .0321 07678  |
| .3354  | .9724 21983  | .2332 28401  | .7692 31658  | .0322 84591  |
| 1.3355 | 0.9724 45301 | 0.2331 31157 | 1.7694 34895 | 2.0324 61524 |
| .3356  | .9724 68609  | .2330 33912  | .7696 38150  | .0326 38478  |
| .3357  | .9724 91908  | .2329 36664  | .7698 41423  | .0328 15452  |
| .3358  | .9725 15197  | .2328 39413  | .7700 44713  | .0329 92446  |
| .3359  | .9725 38476  | .2327 42161  | .7702 48021  | .0331 69461  |
| 1.3360 | 0.9725 61745 | 0.2326 44906 | 1.7704 51347 | 2.0333 46496 |
| .3361  | .9725 85005  | .2325 47648  | .7706 54691  | .0335 23551  |
| .3362  | .9726 08255  | .2324 50389  | .7708 58052  | .0337 00627  |
| .3363  | .9726 31495  | .2323 53127  | .7710 61431  | .0338 77723  |
| .3364  | .9726 54725  | .2322 55862  | .7712 64827  | .0340 54859  |
| 1.3365 | 0.9726 77946 | 0.2321 58596 | 1.7714 68242 | 2.0342 31976 |
| .3366  | .9727 01157  | .2320 61327  | .7716 71674  | .0344 09133  |
| .3367  | .9727 24358  | .2319 64055  | .7718 75124  | .0345 86310  |
| .3368  | .9727 47550  | .2318 66782  | .7720 78591  | .0347 63508  |
| .3369  | .9727 70732  | .2317 69506  | .7722 82076  | .0349 40726  |
| 1.3370 | 0.9727 93904 | 0.2316 72228 | 1.7724 85579 | 2.0351 17964 |
| .3371  | .9728 17066  | .2315 74947  | .7726 89100  | .0352 95223  |
| .3372  | .9728 40219  | .2314 77664  | .7728 92638  | .0354 72502  |
| .3373  | .9728 63362  | .2313 80379  | .7730 96194  | .0356 49801  |
| .3374  | .9728 86495  | .2312 83092  | .7732 99768  | .0358 27121  |
| 1.3375 | 0.9729 09618 | 0.2311 85802 | 1.7735 03360 | 2.0360 04461 |
| .3376  | .9729 32732  | .2310 88510  | .7737 06969  | .0361 81822  |
| .3377  | .9729 55836  | .2309 91215  | .7739 10596  | .0363 59203  |
| .3378  | .9729 78930  | .2308 93918  | .7741 14241  | .0365 36604  |
| .3379  | .9730 02015  | .2307 96619  | .7743 17903  | .0367 14026  |
| 1.3380 | 0.9730 25089 | 0.2306 99318 | 1.7745 21584 | 2.0368 91468 |
| .3381  | .9730 48154  | .2306 02014  | .7747 25282  | .0370 68930  |
| .3382  | .9730 71210  | .2305 04708  | .7749 28997  | .0372 46413  |
| .3383  | .9730 94255  | .2304 07400  | .7751 32731  | .0374 23916  |
| .3384  | .9731 17291  | .2303 10090  | .7753 36482  | .0376 01439  |
| 1.3385 | 0.9731 40317 | 0.2302 12777 | 1.7755 40251 | 2.0377 78983 |
| .3386  | .9731 63334  | .2301 15462  | .7757 44038  | .0379 56547  |
| .3387  | .9731 86341  | .2300 18144  | .7759 47843  | .0381 34132  |
| .3388  | .9732 09337  | .2299 20824  | .7761 51665  | .0383 11737  |
| .3389  | .9732 32325  | .2298 23502  | .7763 55505  | .0384 89362  |
| 1.3390 | 0.9732 55302 | 0.2297 26178 | 1.7765 59363 | 2.0386 67008 |
| .3391  | .9732 78270  | .2296 28851  | .7767 63238  | .0388 44674  |
| .3392  | .9733 01228  | .2295 31522  | .7769 67132  | .0390 22361  |
| .3393  | .9733 24176  | .2294 34191  | .7771 71043  | .0392 00068  |
| .3394  | .9733 47115  | .2293 36857  | .7773 74972  | .0393 77795  |
| 1.3395 | 0.9733 70044 | 0.2292 39521 | 1.7775 78918 | 2.0395 55543 |
| .3396  | .9733 92963  | .2291 42183  | .7777 82883  | .0397 33311  |
| .3397  | .9734 15872  | .2290 44843  | .7779 86865  | .0399 11099  |
| .3398  | .9734 38772  | .2289 47500  | .7781 90865  | .0400 88908  |
| .3399  | .9734 61662  | .2288 50155  | .7783 94883  | .0402 66737  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.3400 | 0.9734 84542 | 0.2287 52808 | 1.7785 98918 | 2.0404 44587 |
| .3401  | .9735 07412  | .2286 55458  | .7788 02972  | .0406 22457  |
| .3402  | .9735 30273  | .2285 58106  | .7790 07043  | .0408 00348  |
| .3403  | .9735 53124  | .2284 60752  | .7792 11132  | .0409 78253  |
| .3404  | .9735 75965  | .2283 63396  | .7794 15239  | .0411 56180  |
| 1.3405 | 0.9735 98796 | 0.2282 66037 | 1.7796 19363 | 2.0413 34142 |
| .3406  | .9736 21618  | .2281 68676  | .7798 23505  | .0415 12114  |
| .3407  | .9736 44430  | .2280 71313  | .7800 27665  | .0416 90106  |
| .3408  | .9736 67232  | .2279 73947  | .7802 31843  | .0418 68119  |
| .3409  | .9736 90025  | .2278 76579  | .7804 36039  | .0420 46153  |
| 1.3410 | 0.9737 12808 | 0.2277 79209 | 1.7806 40253 | 2.0422 24206 |
| .3411  | .9737 35581  | .2276 81837  | .7808 44484  | .0424 02281  |
| .3412  | .9737 58344  | .2275 84462  | .7810 48733  | .0425 80375  |
| .3413  | .9737 81098  | .2274 87085  | .7812 53000  | .0427 58490  |
| .3414  | .9738 03842  | .2273 89706  | .7814 57285  | .0429 36626  |
| 1.3415 | 0.9738 26576 | 0.2272 92324 | 1.7816 61527 | 2.0431 14782 |
| .3416  | .9738 49300  | .2271 94940  | .7818 65908  | .0432 92958  |
| .3417  | .9738 72015  | .2270 97554  | .7820 70246  | .0434 71155  |
| .3418  | .9738 94719  | .2270 00166  | .7822 74602  | .0436 49372  |
| .3419  | .9739 17415  | .2269 02775  | .7824 78976  | .0438 27610  |
| 1.3420 | 0.9739 40100 | 0.2268 05383 | 1.7826 83367 | 2.0440 05868 |
| .3421  | .9739 62776  | .2267 07987  | .7828 87777  | .0441 84147  |
| .3422  | .9739 85442  | .2266 10590  | .7830 92204  | .0443 62446  |
| .3423  | .9740 08098  | .2265 13190  | .7832 96649  | .0445 40765  |
| .3424  | .9740 30744  | .2264 15788  | .7835 01112  | .0447 19105  |
| 1.3425 | 0.9740 53381 | 0.2263 18384 | 1.7837 05593 | 2.0448 97465 |
| .3426  | .9740 76008  | .2262 20978  | .7839 10092  | .0450 75846  |
| .3427  | .9740 98625  | .2261 23569  | .7841 14608  | .0452 54247  |
| .3428  | .9741 21233  | .2260 26158  | .7843 19143  | .0454 32669  |
| .3429  | .9741 43830  | .2259 28745  | .7845 23695  | .0456 11111  |
| 1.3430 | 0.9741 66418 | 0.2258 31329 | 1.7847 28265 | 2.0457 89574 |
| .3431  | .9741 88997  | .2257 33911  | .7849 32853  | .0459 68057  |
| .3432  | .9742 11565  | .2256 36491  | .7851 37459  | .0461 46560  |
| .3433  | .9742 34124  | .2255 39069  | .7853 42082  | .0463 25084  |
| .3434  | .9742 56673  | .2254 41645  | .7855 46724  | .0465 03629  |
| 1.3435 | 0.9742 79212 | 0.2253 44218 | 1.7857 51383 | 2.0466 82194 |
| .3436  | .9743 01742  | .2252 46789  | .7859 56060  | .0468 60779  |
| .3437  | .9743 24262  | .2251 49357  | .7861 60755  | .0470 39385  |
| .3438  | .9743 46772  | .2250 51924  | .7863 65468  | .0472 18011  |
| .3439  | .9743 69272  | .2249 54488  | .7865 70199  | .0473 96658  |
| 1.3440 | 0.9743 91763 | 0.2248 57050 | 1.7867 74947 | 2.0475 75325 |
| .3441  | .9744 14243  | .2247 59610  | .7869 79714  | .0477 54013  |
| .3442  | .9744 36715  | .2246 62167  | .7871 84498  | .0479 32721  |
| .3443  | .9744 59176  | .2245 64722  | .7873 89300  | .0481 11450  |
| .3444  | .9744 81627  | .2244 67275  | .7875 94120  | .0482 90199  |
| 1.3445 | 0.9745 04069 | 0.2243 69826 | 1.7877 98958 | 2.0484 68969 |
| .3446  | .9745 26501  | .2242 72375  | .7880 03814  | .0486 47759  |
| .3447  | .9745 48924  | .2241 74921  | .7882 08688  | .0488 26569  |
| .3448  | .9745 71336  | .2240 77465  | .7884 13580  | .0490 05401  |
| .3449  | .9745 93739  | .2239 80006  | .7886 18489  | .0491 84252  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.3450 | 0.9746 16132 | 0.2238 82546 | 1.7888 23416 | 2.0493 63124 |
| .3451  | .9746 38516  | .2237 85083  | .7890 28362  | .0495 42017  |
| .3452  | .9746 60889  | .2236 87618  | .7892 33325  | .0497 20930  |
| .3453  | .9746 83253  | .2235 90151  | .7894 38306  | .0498 99863  |
| .3454  | .9747 05607  | .2234 92682  | .7896 43305  | .0500 78818  |
| 1.3455 | 0.9747 27952 | 0.2233 95210 | 1.7898 48322 | 2.0502 57792 |
| .3456  | .9747 50287  | .2232 97736  | .7900 53356  | .0504 36787  |
| .3457  | .9747 72611  | .2232 00260  | .7902 58409  | .0506 15803  |
| .3458  | .9747 94927  | .2231 02782  | .7904 63479  | .0507 94839  |
| .3459  | .9748 17232  | .2230 05301  | .7906 68568  | .0509 73896  |
| 1.3460 | 0.9748 39528 | 0.2229 07818 | 1.7908 73674 | 2.0511 52973 |
| .3461  | .9748 61814  | .2228 10333  | .7910 78798  | .0513 32070  |
| .3462  | .9748 84090  | .2227 12846  | .7912 83941  | .0515 11188  |
| .3463  | .9749 06356  | .2226 15356  | .7914 89101  | .0516 90327  |
| .3464  | .9749 28613  | .2225 17864  | .7916 94279  | .0518 69486  |
| 1.3465 | 0.9749 50860 | 0.2224 20370 | 1.7918 99475 | 2.0520 48666 |
| .3466  | .9749 73097  | .2223 22874  | .7921 04688  | .0522 27866  |
| .3467  | .9749 95324  | .2222 25376  | .7923 09920  | .0524 07087  |
| .3468  | .9750 17542  | .2221 27875  | .7925 15170  | .0525 86328  |
| .3469  | .9750 39750  | .2220 30372  | .7927 20437  | .0527 65590  |
| 1.3470 | 0.9750 61948 | 0.2219 32867 | 1.7929 25723 | 2.0529 44872 |
| .3471  | .9750 84136  | .2218 35360  | .7931 31026  | .0531 24175  |
| .3472  | .9751 06315  | .2217 37850  | .7933 36348  | .0533 03498  |
| .3473  | .9751 28484  | .2216 40339  | .7935 41687  | .0534 82842  |
| .3474  | .9751 50643  | .2215 42825  | .7937 47044  | .0536 62207  |
| 1.3475 | 0.9751 72793 | 0.2214 45309 | 1.7939 52420 | 2.0538 41592 |
| .3476  | .9751 94932  | .2213 47790  | .7941 57813  | .0540 20997  |
| .3477  | .9752 17062  | .2212 50270  | .7943 63224  | .0542 00423  |
| .3478  | .9752 39182  | .2211 52747  | .7945 68653  | .0543 79870  |
| .3479  | .9752 61293  | .2210 55222  | .7947 74100  | .0545 59337  |
| 1.3480 | 0.9752 83393 | 0.2209 57694 | 1.7949 79565 | 2.0547 38825 |
| .3481  | .9753 05484  | .2208 60165  | .7951 85048  | .0549 18333  |
| .3482  | .9753 27565  | .2207 62633  | .7953 90548  | .0550 97862  |
| .3483  | .9753 49637  | .2206 65100  | .7955 96067  | .0552 77411  |
| .3484  | .9753 71698  | .2205 67563  | .7958 01604  | .0554 56981  |
| 1.3485 | 0.9753 93750 | 0.2204 70025 | 1.7960 07159 | 2.0556 36571 |
| .3486  | .9754 15792  | .2203 72485  | .7962 12731  | .0558 16182  |
| .3487  | .9754 37825  | .2202 74942  | .7964 18322  | .0559 95814  |
| .3488  | .9754 59847  | .2201 77397  | .7966 23930  | .0561 75466  |
| .3489  | .9754 81860  | .2200 79850  | .7968 29557  | .0563 55139  |
| 1.3490 | 0.9755 03863 | 0.2199 82301 | 1.7970 35201 | 2.0565 34832 |
| .3491  | .9755 25857  | .2198 84749  | .7972 40864  | .0567 14546  |
| .3492  | .9755 47840  | .2197 87196  | .7974 46544  | .0568 94280  |
| .3493  | .9755 69814  | .2196 89640  | .7976 52243  | .0570 74035  |
| .3494  | .9755 91778  | .2195 92082  | .7978 57959  | .0572 53811  |
| 1.3495 | 0.9756 13733 | 0.2194 94521 | 1.7980 63693 | 2.0574 33607 |
| .3496  | .9756 35677  | .2193 96959  | .7982 69446  | .0576 13423  |
| .3497  | .9756 57612  | .2192 99394  | .7984 75216  | .0577 93260  |
| .3498  | .9756 79537  | .2192 01827  | .7986 81004  | .0579 73118  |
| .3499  | .9757 01452  | .2191 04258  | .7988 86811  | .0581 52997  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.3500 | 0.9757 23358 | 0.2190 06687 | 1.7990 92635 | 2.0583 32896 |
| .3501  | .9757 45254  | .2189 09114  | .7992 98477  | .0525 12215  |
| .3502  | .9757 67140  | .2188 11538  | .7995 04338  | .0536 92755  |
| .3503  | .9757 89016  | .2187 13960  | .7997 10216  | .0538 72716  |
| .3504  | .9758 10882  | .2186 16380  | .7999 16112  | .0590 52697  |
| 1.3505 | 0.9758 32739 | 0.2185 18798 | 1.8001 22026 | 2.0592 32699 |
| .3506  | .9758 54586  | .2184 21214  | .8003 27959  | .0594 12722  |
| .3507  | .9758 76423  | .2183 23627  | .8005 33909  | .0595 92765  |
| .3508  | .9758 98251  | .2182 26038  | .8007 39877  | .0597 72329  |
| .3509  | .9759 20069  | .2181 28447  | .8009 45864  | .0599 52913  |
| 1.3510 | 0.9759 41377 | 0.2180 30854 | 1.8011 51868 | 2.0601 33018 |
| .3511  | .9759 63675  | .2179 33259  | .8013 57890  | .0603 13143  |
| .3512  | .9759 85463  | .2178 35662  | .8015 63930  | .0604 93299  |
| .3513  | .9760 07242  | .2177 38062  | .8017 69939  | .0606 73456  |
| .3514  | .9760 29011  | .2176 40460  | .8019 76065  | .0608 53643  |
| 1.3515 | 0.9760 50770 | 0.2175 42856 | 1.8021 82160 | 2.0610 33851 |
| .3516  | .9760 72519  | .2174 45250  | .8023 88272  | .0612 14080  |
| .3517  | .9760 94259  | .2173 47642  | .8025 94402  | .0613 94329  |
| .3518  | .9761 15989  | .2172 50031  | .8028 00551  | .0615 74599  |
| .3519  | .9761 37709  | .2171 52419  | .8030 06717  | .0617 54889  |
| 1.3520 | 0.9761 59419 | 0.2170 54804 | 1.8032 12902 | 2.0619 35200 |
| .3521  | .9761 81120  | .2169 57187  | .8034 19104  | .0621 15532  |
| .3522  | .9762 02811  | .2168 59567  | .8036 25325  | .0622 95884  |
| .3523  | .9762 24492  | .2167 61946  | .8038 31563  | .0624 76257  |
| .3524  | .9762 46163  | .2166 64323  | .8040 37920  | .0626 56650  |
| 1.3525 | 0.9762 67825 | 0.2165 66697 | 1.8042 44095 | 2.0623 37064 |
| .3526  | .9762 89477  | .2164 69069  | .8044 50388  | .0630 17499  |
| .3527  | .9763 11119  | .2163 71439  | .8046 56698  | .0631 97954  |
| .3528  | .9763 32751  | .2162 73807  | .8048 63027  | .0633 78430  |
| .3529  | .9763 54373  | .2161 76172  | .8050 69374  | .0635 58927  |
| 1.3530 | 0.9763 75986 | 0.2160 78536 | 1.8052 75739 | 2.0637 39444 |
| .3531  | .9763 97589  | .2159 80897  | .8054 82122  | .0639 19982  |
| .3532  | .9764 19182  | .2158 83256  | .8056 88523  | .0641 00541  |
| .3533  | .9764 40766  | .2157 85613  | .8058 94942  | .0642 81120  |
| .3534  | .9764 62339  | .2156 87968  | .8061 01379  | .0644 61720  |
| 1.3535 | 0.9764 83903 | 0.2155 90321 | 1.8063 07834 | 2.0646 42340 |
| .3536  | .9765 05458  | .2154 92671  | .8065 14308  | .0648 22981  |
| .3537  | .9765 27002  | .2153 95020  | .8067 20799  | .0650 03643  |
| .3538  | .9765 48537  | .2152 97366  | .8069 27308  | .0651 84325  |
| .3539  | .9765 70061  | .2151 99710  | .8071 33836  | .0653 65028  |
| 1.3540 | 0.9765 91576 | 0.2151 02052 | 1.8073 40381 | 2.0655 45752 |
| .3541  | .9766 13082  | .2150 04392  | .8075 46945  | .0657 26496  |
| .3542  | .9766 34577  | .2149 06729  | .8077 53527  | .0659 07261  |
| .3543  | .9766 56063  | .2148 09065  | .8079 60126  | .0660 89047  |
| .3544  | .9766 77539  | .2147 11398  | .8081 66744  | .0662 68854  |
| 1.3545 | 0.9766 99005 | 0.2146 13729 | 1.8083 73380 | 2.0664 49681 |
| .3546  | .9767 20462  | .2145 16058  | .8085 80034  | .0666 30528  |
| .3547  | .9767 41909  | .2144 18385  | .8087 86706  | .0668 11397  |
| .3548  | .9767 63346  | .2143 20710  | .8089 93396  | .0669 92296  |
| .3549  | .9767 84773  | .2142 23033  | .8092 00105  | .0671 73195  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.3550 | 0.9768 06190 | 0.2141 25353 | 1.8094 06831 | 2.0673 54126 |
| .3551  | .9768 27598  | .2140 27671  | .8096 13576  | .0675 35077  |
| .3552  | .9768 48996  | .2139 29988  | .8098 20338  | .0677 16048  |
| .3553  | .9768 70384  | .2138 32302  | .8100 27119  | .0678 97041  |
| .3554  | .9768 91762  | .2137 34613  | .8102 33918  | .0680 78054  |
| 1.3555 | 0.9769 13131 | 0.2136 36923 | 1.8104 40734 | 2.0682 59087 |
| .3556  | .9769 34490  | .2135 39231  | .8106 47569  | .0684 40142  |
| .3557  | .9769 55839  | .2134 41536  | .8108 54422  | .0686 21217  |
| .3558  | .9769 77178  | .2133 43840  | .8110 61294  | .0688 02313  |
| .3559  | .9769 98507  | .2132 46141  | .8112 68183  | .0689 83429  |
| 1.3560 | 0.9770 19827 | 0.2131 48440 | 1.8114 75090 | 2.0691 64566 |
| .3561  | .9770 41137  | .2130 50737  | .8116 82016  | .0693 45724  |
| .3562  | .9770 62437  | .2129 53032  | .8118 88959  | .0695 26903  |
| .3563  | .9770 83728  | .2128 55324  | .8120 95921  | .0697 08102  |
| .3564  | .9771 05008  | .2127 57615  | .8123 02901  | .0698 89322  |
| 1.3565 | 0.9771 26279 | 0.2126 59903 | 1.8125 09899 | 2.0700 70563 |
| .3566  | .9771 47540  | .2125 62190  | .8127 16915  | .0702 51824  |
| .3567  | .9771 68792  | .2124 64474  | .8129 23949  | .0704 33106  |
| .3568  | .9771 90033  | .2123 66756  | .8131 31002  | .0706 14409  |
| .3569  | .9772 11265  | .2122 69036  | .8133 38072  | .0707 95732  |
| 1.3570 | 0.9772 32487 | 0.2121 71314 | 1.8135 45161 | 2.0709 77076 |
| .3571  | .9772 53699  | .2120 73589  | .8137 52268  | .0711 58441  |
| .3572  | .9772 74902  | .2119 75863  | .8139 59393  | .0713 39827  |
| .3573  | .9772 96094  | .2118 78134  | .8141 66536  | .0715 21233  |
| .3574  | .9773 17277  | .2117 80404  | .8143 73697  | .0717 02660  |
| 1.3575 | 0.9773 38450 | 0.2116 82671 | 1.8145 80876 | 2.0718 84108 |
| .3576  | .9773 59614  | .2115 84936  | .8147 88074  | .0720 65576  |
| .3577  | .9773 80767  | .2114 87199  | .8149 95289  | .0722 47065  |
| .3578  | .9774 01911  | .2113 89460  | .8152 02523  | .0724 28575  |
| .3579  | .9774 23045  | .2112 91719  | .8154 09775  | .0726 10106  |
| 1.3580 | 0.9774 44170 | 0.2111 93975 | 1.8156 17045 | 2.0727 91657 |
| .3581  | .9774 65284  | .2110 96230  | .8158 24333  | .0729 73229  |
| .3582  | .9774 86389  | .2109 98482  | .8160 31640  | .0731 54822  |
| .3583  | .9775 07484  | .2109 00733  | .8162 38964  | .0733 36436  |
| .3584  | .9775 28569  | .2108 02981  | .8164 46307  | .0735 18070  |
| 1.3585 | 0.9775 49644 | 0.2107 05227 | 1.8166 53668 | 2.0736 99725 |
| .3586  | .9775 70710  | .2106 07471  | .8168 61047  | .0738 81401  |
| .3587  | .9775 91766  | .2105 09713  | .8170 68444  | .0740 63097  |
| .3588  | .9776 12812  | .2104 11952  | .8172 75860  | .0742 44814  |
| .3589  | .9776 33848  | .2103 14190  | .8174 83293  | .0744 26552  |
| 1.3590 | 0.9776 54875 | 0.2102 16426 | 1.8176 90745 | 2.0746 08311 |
| .3591  | .9776 75892  | .2101 18659  | .8178 98215  | .0747 90090  |
| .3592  | .9776 96899  | .2100 20891  | .8181 05703  | .0749 71891  |
| .3593  | .9777 17896  | .2099 23120  | .8183 13209  | .0751 53712  |
| .3594  | .9777 38883  | .2098 25347  | .8185 20734  | .0753 35553  |
| 1.3595 | 0.9777 59861 | 0.2097 27572 | 1.8187 28276 | 2.0755 17416 |
| .3596  | .9777 80829  | .2096 29795  | .8189 35837  | .0756 99299  |
| .3597  | .9778 01787  | .2095 32016  | .8191 43416  | .0758 81203  |
| .3598  | .9778 22735  | .2094 34235  | .8193 51013  | .0760 63128  |
| .3599  | .9778 43674  | .2093 36451  | .8195 58629  | .0762 45073  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.3600 | 0.9778 64602 | 0.2092 38666 | 1.8197 63232 | 2.0734 27039 |
| .3601  | .9778 85521  | .2091 40878  | .8199 73914  | .0766 09026  |
| .3602  | .9779 06431  | .2090 43089  | .8201 81584  | .0767 91034  |
| .3603  | .9779 27330  | .2089 45297  | .8203 89272  | .0769 73063  |
| .3604  | .9779 48220  | .2088 47503  | .8205 96979  | .0771 55112  |
| 1.3605 | 0.9779 69100 | 0.2087 49707 | 1.8208 04703 | 2.0773 37182 |
| .3606  | .9779 89970  | .2086 51910  | .8210 12446  | .0775 19273  |
| .3607  | .9780 10830  | .2085 54109  | .8212 20207  | .0777 01385  |
| .3608  | .9780 31680  | .2084 56307  | .8214 27987  | .0778 83517  |
| .3609  | .9780 52521  | .2083 58503  | .8216 35784  | .0780 65670  |
| 1.3610 | 0.9780 73352 | 0.2082 60697 | 1.8218 43600 | 2.0782 47844 |
| .3611  | .9780 94173  | .2081 62888  | .8220 51434  | .0784 30039  |
| .3612  | .9781 14985  | .2080 65078  | .8222 59286  | .0786 12254  |
| .3613  | .9781 35786  | .2079 67265  | .8224 67156  | .0787 94491  |
| .3614  | .9781 56578  | .2078 69451  | .8226 75045  | .0789 76748  |
| 1.3615 | 0.9781 77360 | 0.2077 71634 | 1.8228 82951 | 2.0791 59026 |
| .3616  | .9781 98132  | .2076 73815  | .8230 90876  | .0793 41324  |
| .3617  | .9782 18995  | .2075 75995  | .8232 98820  | .0795 23644  |
| .3618  | .9782 39848  | .2074 78172  | .8235 06781  | .0797 05984  |
| .3619  | .9782 60391  | .2073 80347  | .8237 14761  | .0798 88345  |
| 1.3620 | 0.9782 81124 | 0.2072 82520 | 1.8239 22759 | 2.0800 70727 |
| .3621  | .9783 01847  | .2071 84690  | .8241 30775  | .0802 53130  |
| .3622  | .9783 22561  | .2070 86859  | .8243 38809  | .0804 35553  |
| .3623  | .9783 43264  | .2069 89026  | .8245 46862  | .0806 17998  |
| .3624  | .9783 63959  | .2068 91190  | .8247 54933  | .0808 00463  |
| 1.3625 | 0.9783 84643 | 0.2067 93353 | 1.8249 63022 | 2.0809 82949 |
| .3626  | .9784 05317  | .2066 95514  | .8251 71130  | .0811 65455  |
| .3627  | .9784 25982  | .2065 97672  | .8253 79255  | .0813 47983  |
| .3628  | .9784 46637  | .2064 99828  | .8255 87399  | .0815 30531  |
| .3629  | .9784 67282  | .2064 01983  | .8257 95561  | .0817 13100  |
| 1.3630 | 0.9784 87917 | 0.2063 04135 | 1.8260 03742 | 2.0818 95690 |
| .3631  | .9785 08543  | .2062 06285  | .8262 11941  | .0820 78301  |
| .3632  | .9785 29158  | .2061 08433  | .8264 20157  | .0822 60933  |
| .3633  | .9785 49764  | .2060 10579  | .8266 28393  | .0824 43585  |
| .3634  | .9785 70360  | .2059 12723  | .8268 36646  | .0826 26258  |
| 1.3635 | 0.9785 90947 | 0.2058 14865 | 1.8270 44918 | 2.0828 08952 |
| .3636  | .9786 11523  | .2057 17005  | .8272 53208  | .0829 91667  |
| .3637  | .9786 32090  | .2056 19143  | .8274 61516  | .0831 74403  |
| .3638  | .9786 52647  | .2055 21279  | .8276 69843  | .0833 57160  |
| .3639  | .9786 73195  | .2054 23412  | .8278 78188  | .0835 39937  |
| 1.3640 | 0.9786 93732 | 0.2053 25544 | 1.8280 86551 | 2.0837 22735 |
| .3641  | .9787 14260  | .2052 27674  | .8282 94932  | .0839 05554  |
| .3642  | .9787 34777  | .2051 29801  | .8285 03332  | .0840 88394  |
| .3643  | .9787 55286  | .2050 31927  | .8287 11750  | .0842 71255  |
| .3644  | .9787 75784  | .2049 34050  | .8289 20186  | .0844 54137  |
| 1.3645 | 0.9787 96272 | 0.2048 36171 | 1.8291 28641 | 2.0846 37039 |
| .3646  | .9788 16751  | .2047 38291  | .8293 37114  | .0848 19962  |
| .3647  | .9788 37220  | .2046 40408  | .8295 45605  | .0850 02906  |
| .3648  | .9788 57679  | .2045 42523  | .8297 54114  | .0851 85871  |
| .3649  | .9788 78129  | .2044 44637  | .8299 62642  | .0853 68857  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.3650 | 0.9788 98568 | 0.2043 46748 | 1.8301 71188 | 2.0855 51264 |
| .3651  | .9789 18998  | .2042 48857  | .8303 79752  | .0857 34892  |
| .3652  | .9789 39418  | .2041 50964  | .8305 88335  | .0859 17940  |
| .3653  | .9789 59828  | .2040 53069  | .8307 96936  | .0861 01009  |
| .3654  | .9789 80229  | .2039 55172  | .8310 05555  | .0862 84099  |
| 1.3655 | 0.9790 00619 | 0.2038 57273 | 1.8312 14193 | 2.0864 67210 |
| .3656  | .9790 21000  | .2037 59372  | .8314 22849  | .0866 50342  |
| .3657  | .9790 41371  | .2036 61469  | .8316 31523  | .0868 33495  |
| .3658  | .9790 61732  | .2035 63564  | .8318 40215  | .0870 16668  |
| .3659  | .9790 82084  | .2034 65656  | .8320 48926  | .0871 99863  |
| 1.3660 | 0.9791 02425 | 0.2033 67747 | 1.8322 57655 | 2.0873 83078 |
| .3661  | .9791 22757  | .2032 69836  | .8324 66403  | .0875 66314  |
| .3662  | .9791 43079  | .2031 71923  | .8326 75169  | .0877 49571  |
| .3663  | .9791 63392  | .2030 74007  | .8328 83953  | .0879 32849  |
| .3664  | .9791 83694  | .2029 76090  | .8330 92755  | .0881 16148  |
| 1.3665 | 0.9792 03987 | 0.2028 78171 | 1.8333 01576 | 2.0882 99468 |
| .3666  | .9792 24270  | .2027 80249  | .8335 10415  | .0884 82809  |
| .3667  | .9792 44543  | .2026 82326  | .8337 19272  | .0886 66170  |
| .3668  | .9792 64806  | .2025 84400  | .8339 28148  | .0888 49553  |
| .3669  | .9792 85060  | .2024 86473  | .8341 37042  | .0890 32956  |
| 1.3670 | 0.9793 05304 | 0.2023 88543 | 1.8343 45955 | 2.0892 16380 |
| .3671  | .9793 25538  | .2022 90612  | .8345 54886  | .0893 99825  |
| .3672  | .9793 45762  | .2021 92678  | .8347 63835  | .0895 83291  |
| .3673  | .9793 65976  | .2020 94743  | .8349 72802  | .0897 66778  |
| .3674  | .9793 86181  | .2019 96805  | .8351 81788  | .0899 50285  |
| 1.3675 | 0.9794 06375 | 0.2018 98865 | 1.8353 90792 | 2.0901 33814 |
| .3676  | .9794 26560  | .2018 00924  | .8355 99815  | .0903 17364  |
| .3677  | .9794 46736  | .2017 02980  | .8358 08856  | .0905 00934  |
| .3678  | .9794 66901  | .2016 05034  | .8360 17915  | .0906 84525  |
| .3679  | .9794 87057  | .2015 07087  | .8362 26993  | .0908 68138  |
| 1.3680 | 0.9795 07202 | 0.2014 09137 | 1.8364 36089 | 2.0910 51771 |
| .3681  | .9795 27338  | .2013 11185  | .8366 45203  | .0912 35425  |
| .3682  | .9795 47465  | .2012 13231  | .8368 54336  | .0914 19100  |
| .3683  | .9795 67581  | .2011 15276  | .8370 63487  | .0916 02796  |
| .3684  | .9795 87688  | .2010 17318  | .8372 72656  | .0917 86513  |
| 1.3685 | 0.9796 07785 | 0.2009 19358 | 1.8374 81844 | 2.0919 70250 |
| .3686  | .9796 27872  | .2008 21396  | .8376 91050  | .0921 54009  |
| .3687  | .9796 47949  | .2007 23433  | .8379 00275  | .0923 37788  |
| .3688  | .9796 68016  | .2006 25467  | .8381 09518  | .0925 21589  |
| .3689  | .9796 88074  | .2005 27499  | .8383 18779  | .0927 05410  |
| 1.3690 | 0.9797 08122 | 0.2004 29529 | 1.8385 28059 | 2.0928 89253 |
| .3691  | .9797 28160  | .2003 31557  | .8387 37357  | .0930 73116  |
| .3692  | .9797 48188  | .2002 33584  | .8389 46674  | .0932 57000  |
| .3693  | .9797 68207  | .2001 35608  | .8391 56009  | .0934 40905  |
| .3694  | .9797 88215  | .2000 37630  | .8393 65362  | .0936 24831  |
| 1.3695 | 0.9798 08214 | 0.1999 39650 | 1.8395 74734 | 2.0938 08778 |
| .3696  | .9798 28203  | .1998 41668  | .8397 84124  | .0939 92746  |
| .3697  | .9798 48182  | .1997 43684  | .8399 93532  | .0941 76735  |
| .3698  | .9798 68152  | .1996 45699  | .8402 02959  | .0943 60745  |
| .3699  | .9798 88112  | .1995 47711  | .8404 12404  | .0945 44776  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 1.3700 | 0.9799 08061 | 0.1994 49721 | 1.8406 21868 | 2.0947 28828 |
| .3701  | .9799 28001  | .1993 51729  | .8408 31350  | .0949 12900  |
| .3702  | .9799 47932  | .1992 53735  | .8410 40851  | .0950 96994  |
| .3703  | .9799 67852  | .1991 55740  | .8412 50369  | .0952 81108  |
| .3704  | .9799 87763  | .1990 57742  | .8414 59907  | .0954 65244  |
| 1.3705 | 0.9800 07664 | 0.1989 59742 | 1.8416 69462 | 2.0956 49400 |
| .3706  | .9800 27555  | .1988 61740  | .8418 79037  | .0958 33578  |
| .3707  | .9800 47436  | .1987 63737  | .8420 88629  | .0960 17776  |
| .3708  | .9800 67308  | .1986 65731  | .8422 98240  | .0962 01995  |
| .3709  | .9800 87169  | .1985 67723  | .8425 07870  | .0963 86236  |
| 1.3710 | 0.9801 07021 | 0.1984 69713 | 1.8427 17517 | 2.0965 70497 |
| .3711  | .9801 26863  | .1983 71702  | .8429 27184  | .0967 54779  |
| .3712  | .9801 46695  | .1982 73688  | .8431 36868  | .0969 39082  |
| .3713  | .9801 66518  | .1981 75672  | .8433 46572  | .0971 23407  |
| .3714  | .9801 86331  | .1980 77655  | .8435 56293  | .0973 07752  |
| 1.3715 | 0.9802 06133 | 0.1979 79635 | 1.8437 66033 | 2.0974 92118 |
| .3716  | .9802 25927  | .1978 81613  | .8439 75792  | .0976 76505  |
| .3717  | .9802 45710  | .1977 83590  | .8441 85568  | .0978 60913  |
| .3718  | .9802 65483  | .1976 85564  | .8443 95364  | .0980 45342  |
| .3719  | .9802 85247  | .1975 87537  | .8446 05177  | .0982 29792  |
| 1.3720 | 0.9803 05001 | 0.1974 89507 | 1.8448 15010 | 2.0984 14263 |
| .3721  | .9803 24745  | .1973 91476  | .8450 24860  | .0985 98755  |
| .3722  | .9803 44479  | .1972 93442  | .8452 34729  | .0987 83268  |
| .3723  | .9803 64203  | .1971 95407  | .8454 44617  | .0989 67802  |
| .3724  | .9803 83918  | .1970 97369  | .8456 54523  | .0991 52357  |
| 1.3725 | 0.9804 03623 | 0.1969 99330 | 1.8458 64447 | 2.0993 36933 |
| .3726  | .9804 23318  | .1969 01289  | .8460 74390  | .0995 21530  |
| .3727  | .9804 43003  | .1968 03245  | .8462 84352  | .0997 06148  |
| .3728  | .9804 62679  | .1967 05200  | .8464 94332  | .0999 90787  |
| .3729  | .9804 82344  | .1966 07153  | .8467 04330  | .1000 75447  |
| 1.3730 | 0.9805 02000 | 0.1965 09104 | 1.8469 14347 | 2.1002 60128 |
| .3731  | .9805 21646  | .1964 11053  | .8471 24382  | .1004 44830  |
| .3732  | .9805 41282  | .1963 12999  | .8473 34436  | .1006 29553  |
| .3733  | .9805 60909  | .1962 14944  | .8475 44508  | .1008 14297  |
| .3734  | .9805 80525  | .1961 16887  | .8477 54598  | .1009 99061  |
| 1.3735 | 0.9806 00132 | 0.1960 18828 | 1.8479 64708 | 2.1011 83847 |
| .3736  | .9806 19729  | .1959 20767  | .8481 74835  | .1013 68654  |
| .3737  | .9806 39316  | .1958 22704  | .8483 84981  | .1015 53482  |
| .3738  | .9806 58894  | .1957 24639  | .8485 95146  | .1017 38331  |
| .3739  | .9806 78461  | .1956 26572  | .8488 05329  | .1019 23201  |
| 1.3740 | 0.9806 98019 | 0.1955 28504 | 1.8490 15531 | 2.1021 08092 |
| .3741  | .9807 17567  | .1954 30433  | .8492 25751  | .1022 93005  |
| .3742  | .9807 37105  | .1953 32360  | .8494 35989  | .1024 77938  |
| .3743  | .9807 56633  | .1952 34285  | .8496 46246  | .1026 62892  |
| .3744  | .9807 76152  | .1951 36209  | .8498 56522  | .1028 47867  |
| 1.3745 | 0.9807 95661 | 0.1950 38130 | 1.8500 66816 | 2.1030 32863 |
| .3746  | .9808 15159  | .1949 40050  | .8502 77128  | .1032 17880  |
| .3747  | .9808 34649  | .1948 41967  | .8504 87459  | .1034 02918  |
| .3748  | .9808 54128  | .1947 43883  | .8506 97809  | .1035 87978  |
| .3749  | .9808 73597  | .1946 45796  | .8509 08177  | .1037 73058  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.3750 | 0.9808 93057 | 0.1945 47708 | 1.8511 18564 | 2.1039 58159 |
| .3751  | .9809 12507  | .1944 49618  | .8513 28969  | .1041 43282  |
| .3752  | .9809 31947  | .1943 51525  | .8515 39392  | .1043 28425  |
| .3753  | .9809 51377  | .1942 53431  | .8517 49834  | .1045 13590  |
| .3754  | .9809 70798  | .1941 55335  | .8519 60295  | .1046 98775  |
| 1.3755 | 0.9809 90208 | 0.1940 57237 | 1.8521 70774 | 2.1048 83982 |
| .3756  | .9810 09609  | .1939 59137  | .8523 81272  | .1050 69209  |
| .3757  | .9810 29000  | .1938 61035  | .8525 91788  | .1052 54458  |
| .3758  | .9810 48381  | .1937 62931  | .8528 02323  | .1054 39728  |
| .3759  | .9810 67753  | .1936 64826  | .8530 12876  | .1056 25018  |
| 1.3760 | 0.9810 87114 | 0.1935 66718 | 1.8532 23448 | 2.1058 10330 |
| .3761  | .9811 06466  | .1934 68608  | .8534 34038  | .1059 95663  |
| .3762  | .9811 25808  | .1933 70497  | .8536 44647  | .1061 81017  |
| .3763  | .9811 45140  | .1932 72383  | .8538 55274  | .1063 66392  |
| .3764  | .9811 64462  | .1931 74268  | .8540 65920  | .1065 51788  |
| 1.3765 | 0.9811 83775 | 0.1930 76150 | 1.8542 76584 | 2.1067 37205 |
| .3766  | .9812 03078  | .1929 78031  | .8544 87267  | .1069 22643  |
| .3767  | .9812 22371  | .1928 79909  | .8546 97969  | .1071 08103  |
| .3768  | .9812 41654  | .1927 81786  | .8549 08689  | .1072 93583  |
| .3769  | .9812 60927  | .1926 83661  | .8551 19428  | .1074 79084  |
| 1.3770 | 0.9812 80190 | 0.1925 85534 | 1.8553 30185 | 2.1076 64607 |
| .3771  | .9812 99444  | .1924 87405  | .8555 40961  | .1078 50150  |
| .3772  | .9813 18688  | .1923 89274  | .8557 51755  | .1080 35715  |
| .3773  | .9813 37922  | .1922 91141  | .8559 62568  | .1082 21301  |
| .3774  | .9813 57146  | .1921 93007  | .8561 73399  | .1084 06908  |
| 1.3775 | 0.9813 76360 | 0.1920 94870 | 1.8563 84249 | 2.1085 92535 |
| .3776  | .9813 95565  | .1919 96731  | .8565 95118  | .1087 78184  |
| .3777  | .9814 14760  | .1918 98591  | .8568 06005  | .1089 63854  |
| .3778  | .9814 33945  | .1918 00448  | .8570 16910  | .1091 49546  |
| .3779  | .9814 53120  | .1917 02304  | .8572 27835  | .1093 35258  |
| 1.3780 | 0.9814 72285 | 0.1916 04158 | 1.8574 38778 | 2.1095 20991 |
| .3781  | .9814 91441  | .1915 06010  | .8576 49739  | .1097 06746  |
| .3782  | .9815 10586  | .1914 07859  | .8578 60719  | .1098 92521  |
| .3783  | .9815 29722  | .1913 09707  | .8580 71717  | .1100 78318  |
| .3784  | .9815 48848  | .1912 11554  | .8582 82735  | .1102 64135  |
| 1.3785 | 0.9815 67965 | 0.1911 13398 | 1.8584 93770 | 2.1104 49974 |
| .3786  | .9815 87071  | .1910 15240  | .8587 04825  | .1106 35834  |
| .3787  | .9816 06168  | .1909 17080  | .8589 15897  | .1108 21715  |
| .3788  | .9816 25254  | .1908 18919  | .8591 26989  | .1110 07617  |
| .3789  | .9816 44331  | .1907 20755  | .8593 38099  | .1111 93541  |
| 1.3790 | 0.9816 63399 | 0.1906 22590 | 1.8595 49228 | 2.1113 79485 |
| .3791  | .9816 82456  | .1905 24423  | .8597 60375  | .1115 65451  |
| .3792  | .9817 01504  | .1904 26253  | .8599 71541  | .1117 51437  |
| .3793  | .9817 20541  | .1903 28082  | .8601 82725  | .1119 37445  |
| .3794  | .9817 39569  | .1902 29909  | .8603 93928  | .1121 23474  |
| 1.3795 | 0.9817 58587 | 0.1901 31734 | 1.8606 05150 | 2.1123 09524 |
| .3796  | .9817 77595  | .1900 33558  | .8608 16390  | .1124 95595  |
| .3797  | .9817 96594  | .1899 35379  | .8610 27649  | .1126 81687  |
| .3798  | .9818 15583  | .1898 37198  | .8612 38926  | .1128 67800  |
| .3799  | .9818 34561  | .1897 39016  | .8614 50223  | .1130 53935  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.3800 | 0.9818 53530 | 0.1296 40831 | 1.8616 61537 | 2.1132 40090 |
| .3801  | .9813 72490  | .1295 42645  | .8618 72871  | .1134 26267  |
| .3802  | .9818 91439  | .1294 44457  | .8620 84222  | .1136 12465  |
| .3803  | .9819 10378  | .1293 46267  | .8622 95593  | .1137 98684  |
| .3804  | .9819 29308  | .1292 48075  | .8625 06982  | .1139 84924  |
| 1.3805 | 0.9819 48228 | 0.1291 49881 | 1.8627 18390 | 2.1141 71185 |
| .3806  | .9819 67138  | .1290 51685  | .8629 29816  | .1143 57468  |
| .3807  | .9819 86038  | .1289 53487  | .8631 41262  | .1145 43771  |
| .3808  | .9820 04929  | .1288 55293  | .8633 52725  | .1147 30096  |
| .3809  | .9820 23809  | .1287 57086  | .8635 64208  | .1149 16442  |
| 1.3810 | 0.9820 42680 | 0.1286 58883 | 1.8637 75708 | 2.1151 02809 |
| .3811  | .9820 61541  | .1285 60678  | .8639 87228  | .1152 89197  |
| .3812  | .9820 80392  | .1284 62471  | .8641 98766  | .1154 75606  |
| .3813  | .9820 99234  | .1283 64262  | .8644 10323  | .1156 62037  |
| .3814  | .9821 18065  | .1282 66051  | .8646 21899  | .1158 48488  |
| 1.3815 | 0.9821 36887 | 0.1281 67838 | 1.8648 33493 | 2.1160 34961 |
| .3816  | .9821 55699  | .1280 69624  | .8650 45106  | .1162 21455  |
| .3817  | .9821 74501  | .1279 71407  | .8652 56737  | .1164 07970  |
| .3818  | .9821 93293  | .1278 73189  | .8654 68387  | .1165 94506  |
| .3819  | .9822 12075  | .1277 74968  | .8656 80056  | .1167 81064  |
| 1.3820 | 0.9822 30848 | 0.1276 76746 | 1.8658 91744 | 2.1169 67642 |
| .3821  | .9822 49611  | .1275 78522  | .8661 03450  | .1171 54242  |
| .3822  | .9822 68364  | .1274 80296  | .8663 15174  | .1173 40863  |
| .3823  | .9822 87107  | .1273 82069  | .8665 26918  | .1175 27505  |
| .3824  | .9823 05840  | .1272 83839  | .8667 38680  | .1177 14168  |
| 1.3825 | 0.9823 24564 | 0.1271 85607 | 1.8669 50461 | 2.1179 00853 |
| .3826  | .9823 43277  | .1270 87374  | .8671 62260  | .1180 87558  |
| .3827  | .9823 61981  | .1269 89139  | .8673 74078  | .1182 74285  |
| .3828  | .9823 80675  | .1268 90902  | .8675 85915  | .1184 61033  |
| .3829  | .9823 99359  | .1267 92663  | .8677 97770  | .1186 47802  |
| 1.3830 | 0.9824 18034 | 0.1266 94422 | 1.8680 09644 | 2.1188 34593 |
| .3831  | .9824 36698  | .1265 96179  | .8682 21537  | .1190 21404  |
| .3832  | .9824 55353  | .1264 97934  | .8684 33449  | .1192 08237  |
| .3833  | .9824 73998  | .1263 99688  | .8686 45379  | .1193 95091  |
| .3834  | .9824 92633  | .1263 01440  | .8688 57328  | .1195 81966  |
| 1.3835 | 0.9825 11258 | 0.1262 03189 | 1.8690 69295 | 2.1197 68863 |
| .3836  | .9825 29873  | .1261 04937  | .8692 81282  | .1199 55780  |
| .3837  | .9825 48479  | .1260 06683  | .8694 93286  | .1201 42719  |
| .3838  | .9825 67075  | .1259 08428  | .8697 05310  | .1203 29679  |
| .3839  | .9825 85661  | .1258 10170  | .8699 17352  | .1205 16660  |
| 1.3840 | 0.9826 04237 | 0.1257 11911 | 1.8701 29413 | 2.1207 03682 |
| .3841  | .9826 22803  | .1256 13649  | .8703 41493  | .1208 90686  |
| .3842  | .9826 41360  | .1255 15386  | .8705 53592  | .1210 77731  |
| .3843  | .9826 59906  | .1254 17121  | .8707 65709  | .1212 64796  |
| .3844  | .9826 78443  | .1253 18854  | .8709 77845  | .1214 51884  |
| 1.3845 | 0.9826 96970 | 0.1252 20585 | 1.8711 89999 | 2.1216 38992 |
| .3846  | .9827 15487  | .1251 22315  | .8714 02172  | .1218 26122  |
| .3847  | .9827 33994  | .1250 24042  | .8716 14364  | .1220 13272  |
| .3848  | .9827 52492  | .1249 25768  | .8718 26575  | .1222 00445  |
| .3849  | .9827 70980  | .1248 27492  | .8720 38804  | .1223 87638  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.3850 | 0.9827 89457 | 0.1847 29214 | 1.8722 51053 | 2.1225 74852 |
| .3851  | .9828 07925  | .1846 30934  | .8724 63319  | .1227 62088  |
| .3852  | .9828 26384  | .1845 32652  | .8726 75605  | .1229 49345  |
| .3853  | .9828 44832  | .1844 34368  | .8728 87909  | .1231 36623  |
| .3854  | .9828 63270  | .1843 36083  | .8731 00232  | .1233 23923  |
| 1.3855 | 0.9828 81699 | 0.1842 37796 | 1.8733 12574 | 2.1235 11243 |
| .3856  | .9829 00118  | .1841 39507  | .8735 24935  | .1236 98585  |
| .3857  | .9829 18527  | .1840 41216  | .8737 37314  | .1238 85948  |
| .3858  | .9829 36926  | .1839 42923  | .8739 49712  | .1240 73333  |
| .3859  | .9829 55316  | .1838 44628  | .8741 62128  | .1242 60738  |
| 1.3860 | 0.9829 73695 | 0.1837 46332 | 1.8743 74564 | 2.1244 48165 |
| .3861  | .9829 92065  | .1836 48034  | .8745 87018  | .1246 35613  |
| .3862  | .9830 10425  | .1835 49734  | .8747 99491  | .1248 23082  |
| .3863  | .9830 28775  | .1834 51432  | .8750 11983  | .1250 10573  |
| .3864  | .9830 47115  | .1833 53128  | .8752 24493  | .1251 98085  |
| 1.3865 | 0.9830 65446 | 0.1832 54822 | 1.8754 37022 | 2.1253 85618 |
| .3866  | .9830 83766  | .1831 56515  | .8756 49570  | .1255 73172  |
| .3867  | .9831 02077  | .1830 58205  | .8758 62137  | .1257 60748  |
| .3868  | .9831 20378  | .1829 59894  | .8760 74722  | .1259 48345  |
| .3869  | .9831 38669  | .1828 61581  | .8762 87327  | .1261 35963  |
| 1.3870 | 0.9831 56950 | 0.1827 63267 | 1.8764 99950 | 2.1263 23602 |
| .3871  | .9831 75221  | .1826 64950  | .8767 12591  | .1265 11263  |
| .3872  | .9831 93483  | .1825 66631  | .8769 25252  | .1266 98945  |
| .3873  | .9832 11735  | .1824 68311  | .8771 37931  | .1268 86648  |
| .3874  | .9832 29977  | .1823 69989  | .8773 50629  | .1270 74372  |
| 1.3875 | 0.9832 48209 | 0.1822 71665 | 1.8775 63346 | 2.1272 62118 |
| .3876  | .9832 66431  | .1821 73340  | .8777 76082  | .1274 49885  |
| .3877  | .9832 84643  | .1820 75012  | .8779 88836  | .1276 37673  |
| .3878  | .9833 02846  | .1819 76683  | .8782 01609  | .1278 25483  |
| .3879  | .9833 21039  | .1818 78351  | .8784 14401  | .1280 13313  |
| 1.3880 | 0.9833 39222 | 0.1817 80018 | 1.8786 27212 | 2.1282 01165 |
| .3881  | .9833 57395  | .1816 81684  | .8788 40041  | .1283 89039  |
| .3882  | .9833 75558  | .1815 83347  | .8790 52890  | .1285 76933  |
| .3883  | .9833 93711  | .1814 85008  | .8792 65757  | .1287 64849  |
| .3884  | .9834 11855  | .1813 86668  | .8794 78645  | .1289 52787  |
| 1.3885 | 0.9834 29989 | 0.1812 88326 | 1.8796 91547 | 2.1291 40745 |
| .3886  | .9834 48113  | .1811 89982  | .8799 04471  | .1293 28725  |
| .3887  | .9834 66227  | .1810 91636  | .8801 17413  | .1295 16726  |
| .3888  | .9834 84331  | .1809 93289  | .8803 30374  | .1297 04748  |
| .3889  | .9835 02425  | .1808 94940  | .8805 43354  | .1298 92792  |
| 1.3890 | 0.9835 20510 | 0.1807 96588 | 1.8807 56353 | 2.1300 80857 |
| .3891  | .9835 38585  | .1806 98235  | .8809 69370  | .1302 68943  |
| .3892  | .9835 56650  | .1805 99881  | .8811 82406  | .1304 57051  |
| .3893  | .9835 74705  | .1805 01524  | .8813 95461  | .1306 45180  |
| .3894  | .9835 92750  | .1804 03166  | .8816 08535  | .1308 33330  |
| 1.3895 | 0.9836 10785 | 0.1803 04806 | 1.8818 21628 | 2.1310 21502 |
| .3896  | .9836 28811  | .1802 06444  | .8820 34740  | .1312 09694  |
| .3897  | .9836 46827  | .1801 08080  | .8822 47870  | .1313 97909  |
| .3898  | .9836 64833  | .1800 09714  | .8824 61019  | .1315 86144  |
| .3899  | .9836 82829  | .1799 11347  | .8826 74187  | .1317 74401  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 1.3900 | 0.9837 00815 | 0.1798 12978 | 1.8828 87374 | 2.1313 62679 |
| .3901  | .9837 18791  | .1797 14607  | .8831 30880  | .1321 50978  |
| .3902  | .9837 36758  | .1796 16234  | .8833 13604  | .1323 39299  |
| .3903  | .9837 54714  | .1795 17859  | .8835 27043  | .1325 27641  |
| .3904  | .9837 72661  | .1794 19483  | .8837 40310  | .1327 16004  |
| 1.3905 | 0.9837 90598 | 0.1793 21105 | 1.8839 53591 | 2.1329 04389 |
| .3906  | .9838 08526  | .1792 22725  | .8841 66891  | .1330 92795  |
| .3907  | .9838 26443  | .1791 24343  | .8843 80209  | .1332 81222  |
| .3908  | .9838 44350  | .1790 25960  | .8845 93547  | .1334 69671  |
| .3909  | .9838 62248  | .1789 27574  | .8848 06903  | .1336 58141  |
| 1.3910 | 0.9838 80136 | 0.1788 29187 | 1.8850 20279 | 2.1338 46632 |
| .3911  | .9838 98014  | .1787 30798  | .8852 33673  | .1340 35145  |
| .3912  | .9839 15882  | .1786 32408  | .8854 47036  | .1342 23679  |
| .3913  | .9839 33740  | .1785 34015  | .8856 60517  | .1344 12235  |
| .3914  | .9839 51589  | .1784 35621  | .8858 73968  | .1346 00811  |
| 1.3915 | 0.9839 69428 | 0.1783 37225 | 1.8860 87438 | 2.1347 89409 |
| .3916  | .9839 87256  | .1782 38827  | .8863 00926  | .1348 78028  |
| .3917  | .9840 05075  | .1781 40427  | .8865 14433  | .1351 66670  |
| .3918  | .9840 22884  | .1780 42026  | .8867 27959  | .1353 55338  |
| .3919  | .9840 40684  | .1779 43623  | .8869 41504  | .1355 44018  |
| 1.3920 | 0.9840 58473 | 0.1778 45218 | 1.8871 55068 | 2.1357 32720 |
| .3921  | .9840 76253  | .1777 46811  | .8873 68651  | .1358 21448  |
| .3922  | .9840 94022  | .1776 48402  | .8875 82252  | .1361 10194  |
| .3923  | .9841 11782  | .1775 49992  | .8877 95873  | .1362 98963  |
| .3924  | .9841 29532  | .1774 51580  | .8880 09512  | .1364 87753  |
| 1.3925 | 0.9841 47273 | 0.1773 53166 | 1.8882 23170 | 2.1366 76565 |
| .3926  | .9841 65003  | .1772 54751  | .8884 36848  | .1368 65398  |
| .3927  | .9841 82724  | .1771 56333  | .8886 50544  | .1370 54252  |
| .3928  | .9842 00434  | .1770 57914  | .8888 64258  | .1372 43128  |
| .3929  | .9842 18135  | .1769 59493  | .8890 77992  | .1374 32025  |
| 1.3930 | 0.9842 35826 | 0.1768 61070 | 1.8892 91745 | 2.1376 20943 |
| .3931  | .9842 53507  | .1767 62646  | .8895 05516  | .1378 09883  |
| .3932  | .9842 71179  | .1766 64220  | .8897 19307  | .1379 98844  |
| .3933  | .9842 88840  | .1765 65792  | .8899 33116  | .1381 87827  |
| .3934  | .9843 06492  | .1764 67362  | .8901 46944  | .1383 76831  |
| 1.3935 | 0.9843 24134 | 0.1763 68930 | 1.8903 60791 | 2.1385 65856 |
| .3936  | .9843 41766  | .1762 70497  | .8905 74658  | .1387 54903  |
| .3937  | .9843 59388  | .1761 72062  | .8907 88542  | .1389 43971  |
| .3938  | .9843 77000  | .1760 73625  | .8910 02446  | .1391 33061  |
| .3939  | .9843 94603  | .1759 75187  | .8912 16369  | .1393 22172  |
| 1.3940 | 0.9844 12195 | 0.1758 76746 | 1.8914 30311 | 2.1395 11304 |
| .3941  | .9844 29778  | .1757 78304  | .8916 44271  | .1397 00458  |
| .3942  | .9844 47351  | .1756 79860  | .8918 58251  | .1398 89633  |
| .3943  | .9844 64914  | .1755 81415  | .8920 72249  | .1400 78829  |
| .3944  | .9844 82467  | .1754 82967  | .8922 86267  | .1402 68047  |
| 1.3945 | 0.9845 00011 | 0.1753 84518 | 1.8925 00303 | 2.1404 57287 |
| .3946  | .9845 17544  | .1752 86067  | .8927 14358  | .1406 46547  |
| .3947  | .9845 35068  | .1751 87615  | .8929 28432  | .1408 35830  |
| .3948  | .9845 52582  | .1750 89160  | .8931 42525  | .1410 25133  |
| .3949  | .9845 70086  | .1749 90704  | .8933 56637  | .1412 14458  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 1.3950 | 0.9845 87580 | 0.1748 92246 | 1.8935 70768 | 2.1414 03804 |
| .3951  | .9846 05064  | .1747 93787  | .8937 84918  | .1415 93172  |
| .3952  | .9846 22538  | .1746 95325  | .8939 99087  | .1417 82561  |
| .3953  | .9846 40003  | .1745 96862  | .8942 13274  | .1419 71972  |
| .3954  | .9846 57458  | .1744 98397  | .8944 27481  | .1421 61404  |
| 1.3955 | 0.9846 74903 | 0.1743 99931 | 1.8946 41707 | 2.1423 50858 |
| .3956  | .9846 92338  | .1743 01462  | .8948 55951  | .1425 40332  |
| .3957  | .9847 09763  | .1742 02992  | .8950 70215  | .1427 29829  |
| .3958  | .9847 27178  | .1741 04520  | .8952 84497  | .1429 19347  |
| .3959  | .9847 44584  | .1740 06047  | .8954 98799  | .1431 08886  |
| 1.3960 | 0.9847 61980 | 0.1739 07572 | 1.8957 13119 | 2.1432 98446 |
| .3961  | .9847 79365  | .1738 09095  | .8959 27458  | .1434 88028  |
| .3962  | .9847 96741  | .1737 10616  | .8961 41817  | .1436 77632  |
| .3963  | .9848 14108  | .1736 12135  | .8963 56194  | .1438 67257  |
| .3964  | .9848 31464  | .1735 13653  | .8965 70590  | .1440 56903  |
| 1.3965 | 0.9848 48810 | 0.1734 15169 | 1.8967 85005 | 2.1442 46571 |
| .3966  | .9848 66147  | .1733 16683  | .8969 99439  | .1444 36260  |
| .3967  | .9848 83474  | .1732 18196  | .8972 13893  | .1446 25971  |
| .3968  | .9849 00791  | .1731 19706  | .8974 28365  | .1448 15703  |
| .3969  | .9849 18098  | .1730 21215  | .8976 42856  | .1450 05456  |
| 1.3970 | 0.9849 35395 | 0.1729 22723 | 1.8978 57366 | 2.1451 95231 |
| .3971  | .9849 52682  | .1728 24228  | .8980 71895  | .1453 85028  |
| .3972  | .9849 69960  | .1727 25732  | .8982 86443  | .1455 74846  |
| .3973  | .9849 87227  | .1726 27234  | .8985 01010  | .1457 64685  |
| .3974  | .9850 04485  | .1725 28735  | .8987 15596  | .1459 54546  |
| 1.3975 | 0.9850 21733 | 0.1724 30234 | 1.8989 30201 | 2.1461 44428 |
| .3976  | .9850 38971  | .1723 31730  | .8991 44825  | .1463 34332  |
| .3977  | .9850 56199  | .1722 33226  | .8993 59467  | .1465 24257  |
| .3978  | .9850 73418  | .1721 34719  | .8995 74129  | .1467 14204  |
| .3979  | .9850 90626  | .1720 36211  | .8997 88810  | .1469 04172  |
| 1.3980 | 0.9851 07825 | 0.1719 37701 | 1.9000 03510 | 2.1470 94162 |
| .3981  | .9851 25014  | .1718 39189  | .9002 18229  | .1472 84173  |
| .3982  | .9851 42193  | .1717 40676  | .9004 32967  | .1474 74205  |
| .3983  | .9851 59362  | .1716 42161  | .9006 47724  | .1476 64259  |
| .3984  | .9851 76521  | .1715 43644  | .9008 62500  | .1478 54335  |
| 1.3985 | 0.9851 93671 | 0.1714 45126 | 1.9010 77295 | 2.1480 44432 |
| .3986  | .9852 10810  | .1713 46606  | .9012 92109  | .1482 34550  |
| .3987  | .9852 27940  | .1712 48084  | .9015 06942  | .1484 24690  |
| .3988  | .9852 45060  | .1711 49560  | .9017 21794  | .1486 14852  |
| .3989  | .9852 62170  | .1710 51035  | .9019 36665  | .1488 05035  |
| 1.3990 | 0.9852 79270 | 0.1709 52507 | 1.9021 51555 | 2.1489 95239 |
| .3991  | .9852 96360  | .1708 53979  | .9023 66464  | .1491 85465  |
| .3992  | .9853 13441  | .1707 55448  | .9025 81392  | .1493 75712  |
| .3993  | .9853 30512  | .1706 56916  | .9027 96339  | .1495 65981  |
| .3994  | .9853 47572  | .1705 58382  | .9030 11305  | .1497 56272  |
| 1.3995 | 0.9853 64623 | 0.1704 59846 | 1.9032 26290 | 2.1499 46583 |
| .3996  | .9853 81664  | .1703 61309  | .9034 41294  | .1501 36917  |
| .3997  | .9853 98696  | .1702 62770  | .9036 56318  | .1503 27272  |
| .3998  | .9854 15717  | .1701 64229  | .9038 71360  | .1505 17648  |
| .3999  | .9854 32728  | .1700 65687  | .9040 86421  | .1507 08046  |

| x      | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 1.4000 | 0.9854 49730 | 0.1699 67143 | 1.9043 01501 | 2.1508 98485 |
| .4001  | .9854 66722  | .1698 68597  | .9045 16601  | .1510 83906  |
| .4002  | .9854 83704  | .1697 70050  | .9047 31719  | .1512 79369  |
| .4003  | .9855 00676  | .1696 71500  | .9049 46857  | .1514 69853  |
| .4004  | .9855 17638  | .1695 72949  | .9051 62013  | .1516 60358  |
| 1.4005 | 0.9855 34590 | 0.1694 74397 | 1.9053 77189 | 2.1518 50885 |
| .4006  | .9855 51533  | .1693 75843  | .9055 92383  | .1520 41434  |
| .4007  | .9855 68466  | .1692 77287  | .9058 07597  | .1522 32004  |
| .4008  | .9855 85388  | .1691 78729  | .9060 22830  | .1524 22595  |
| .4009  | .9856 02301  | .1690 80169  | .9062 38082  | .1526 13208  |
| 1.4010 | 0.9856 19204 | 0.1689 81608 | 1.9064 53352 | 2.1528 03843 |
| .4011  | .9856 36098  | .1688 83046  | .9066 68642  | .1529 94499  |
| .4012  | .9856 52981  | .1687 84481  | .9068 83951  | .1531 85176  |
| .4013  | .9856 69855  | .1686 85915  | .9070 99279  | .1533 75876  |
| .4014  | .9856 86718  | .1685 87347  | .9073 14627  | .1535 66596  |
| 1.4015 | 0.9857 03572 | 0.1684 88778 | 1.9075 29993 | 2.1537 57338 |
| .4016  | .9857 20416  | .1683 90206  | .9077 45378  | .1539 48102  |
| .4017  | .9857 37250  | .1682 91634  | .9079 60782  | .1541 38888  |
| .4018  | .9857 54074  | .1681 93059  | .9081 76206  | .1543 29694  |
| .4019  | .9857 70889  | .1680 94483  | .9083 91648  | .1545 20523  |
| 1.4020 | 0.9857 87693 | 0.1679 95905 | 1.9086 07110 | 2.1547 11373 |
| .4021  | .9858 04488  | .1678 97325  | .9088 22591  | .1549 02244  |
| .4022  | .9858 21273  | .1677 98744  | .9090 38090  | .1550 93137  |
| .4023  | .9858 38048  | .1677 00161  | .9092 53609  | .1552 84052  |
| .4024  | .9858 54813  | .1676 01576  | .9094 69147  | .1554 74988  |
| 1.4025 | 0.9858 71568 | 0.1675 02990 | 1.9096 84704 | 2.1556 65942 |
| .4026  | .9858 88313  | .1674 04402  | .9099 00280  | .1558 56825  |
| .4027  | .9859 05049  | .1673 05812  | .9101 15876  | .1560 47926  |
| .4028  | .9859 21774  | .1672 07221  | .9103 31490  | .1562 38948  |
| .4029  | .9859 38490  | .1671 08628  | .9105 47123  | .1564 29992  |
| 1.4030 | 0.9859 55196 | 0.1670 10033 | 1.9107 62776 | 2.1566 21058 |
| .4031  | .9859 71892  | .1669 11437  | .9109 78448  | .1568 12145  |
| .4032  | .9859 88578  | .1668 12839  | .9111 94138  | .1570 03253  |
| .4033  | .9860 05255  | .1667 14239  | .9114 09848  | .1571 94333  |
| .4034  | .9860 21921  | .1666 15638  | .9116 25577  | .1573 85535  |
| 1.4035 | 0.9860 38578 | 0.1665 17035 | 1.9118 41325 | 2.1575 76709 |
| .4036  | .9860 55225  | .1664 18430  | .9120 57093  | .1577 67903  |
| .4037  | .9860 71862  | .1663 19824  | .9122 72879  | .1579 59120  |
| .4038  | .9860 88489  | .1662 21216  | .9124 88684  | .1581 50358  |
| .4039  | .9861 05106  | .1661 22606  | .9127 04509  | .1583 41618  |
| 1.4040 | 0.9861 21713 | 0.1660 23995 | 1.9129 20353 | 2.1585 32899 |
| .4041  | .9861 38311  | .1659 25382  | .9131 36216  | .1587 24202  |
| .4042  | .9861 54898  | .1658 26767  | .9133 52098  | .1589 15526  |
| .4043  | .9861 71476  | .1657 28151  | .9135 67999  | .1591 06872  |
| .4044  | .9861 88044  | .1656 29533  | .9137 83919  | .1592 98240  |
| 1.4045 | 0.9862 04602 | 0.1655 30913 | 1.9139 99858 | 2.1594 89629 |
| .4046  | .9862 21150  | .1654 32292  | .9142 15817  | .1596 81040  |
| .4047  | .9862 37688  | .1653 33669  | .9144 31795  | .1598 72472  |
| .4048  | .9862 54217  | .1652 35044  | .9146 47791  | .1600 63926  |
| .4049  | .9862 70735  | .1651 36418  | .9148 63807  | .1602 55402  |



| x      | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 1.4050 | 0.9862 87244 | 0.1650 37790 | 1.9150 79842 | 2.1604 46899 |
| .4051  | .9863 03743  | .1649 39161  | .9152 95897  | .1606 38418  |
| .4052  | .9863 20232  | .1648 40529  | .9155 11970  | .1608 29958  |
| .4053  | .9863 36711  | .1647 41897  | .9157 28063  | .1610 21520  |
| .4054  | .9863 53180  | .1646 43262  | .9159 44174  | .1612 13104  |
| 1.4055 | 0.9863 69640 | 0.1645 44626 | 1.9161 60305 | 2.1614 04709 |
| .4056  | .9863 86089  | .1644 45988  | .9163 76455  | .1615 96336  |
| .4057  | .9864 02529  | .1643 47349  | .9165 92625  | .1617 87984  |
| .4058  | .9864 18959  | .1642 48708  | .9168 08813  | .1619 79654  |
| .4059  | .9864 35379  | .1641 50065  | .9170 25020  | .1621 71346  |
| 1.4060 | 0.9864 51789 | 0.1640 51421 | 1.9172 41247 | 2.1623 63059 |
| .4061  | .9864 68189  | .1639 52775  | .9174 57493  | .1625 54794  |
| .4062  | .9864 84579  | .1638 54127  | .9176 73758  | .1627 46551  |
| .4063  | .9865 00960  | .1637 55478  | .9178 90042  | .1629 38329  |
| .4064  | .9865 17330  | .1636 56827  | .9181 06346  | .1631 30129  |
| 1.4065 | 0.9865 33691 | 0.1635 58174 | 1.9183 22668 | 2.1633 21950 |
| .4066  | .9865 50042  | .1634 59520  | .9185 39010  | .1635 13793  |
| .4067  | .9865 66383  | .1633 60864  | .9187 55371  | .1637 05658  |
| .4068  | .9865 82714  | .1632 62207  | .9189 71751  | .1638 97544  |
| .4069  | .9865 99035  | .1631 63548  | .9191 88151  | .1640 89452  |
| 1.4070 | 0.9866 15347 | 0.1630 64887 | 1.9194 04569 | 2.1642 81382 |
| .4071  | .9866 31648  | .1629 66225  | .9196 21007  | .1644 73333  |
| .4072  | .9866 47940  | .1628 67561  | .9198 37464  | .1646 65306  |
| .4073  | .9866 64222  | .1627 68895  | .9200 53940  | .1648 57301  |
| .4074  | .9866 80494  | .1626 70228  | .9202 70435  | .1650 49317  |
| 1.4075 | 0.9866 96756 | 0.1625 71559 | 1.9204 86950 | 2.1652 41355 |
| .4076  | .9867 13008  | .1624 72888  | .9207 03484  | .1654 33414  |
| .4077  | .9867 29251  | .1623 74216  | .9209 20037  | .1656 25496  |
| .4078  | .9867 45483  | .1622 75543  | .9211 36609  | .1658 17598  |
| .4079  | .9867 61706  | .1621 76867  | .9213 53200  | .1660 09723  |
| 1.4080 | 0.9867 77918 | 0.1620 78190 | 1.9215 69811 | 2.1662 01869 |
| .4081  | .9867 94121  | .1619 79512  | .9217 86440  | .1663 94037  |
| .4082  | .9868 10314  | .1618 80831  | .9220 03089  | .1665 86226  |
| .4083  | .9868 26497  | .1617 82150  | .9222 19758  | .1667 78437  |
| .4084  | .9868 42671  | .1616 83466  | .9224 36445  | .1669 70670  |
| 1.4085 | 0.9868 58834 | 0.1615 84781 | 1.9226 53152 | 2.1671 62925 |
| .4086  | .9868 74988  | .1614 86094  | .9228 69878  | .1673 55201  |
| .4087  | .9868 91131  | .1613 87406  | .9230 86623  | .1675 47499  |
| .4088  | .9869 07265  | .1612 88716  | .9233 03387  | .1677 39818  |
| .4089  | .9869 23389  | .1611 90025  | .9235 20171  | .1679 32159  |
| 1.4090 | 0.9869 39503 | 0.1610 91331 | 1.9237 36974 | 2.1681 24522 |
| .4091  | .9869 55607  | .1609 92637  | .9239 53796  | .1683 16907  |
| .4092  | .9869 71702  | .1608 93940  | .9241 70637  | .1685 09313  |
| .4093  | .9869 87786  | .1607 95242  | .9243 87498  | .1687 01741  |
| .4094  | .9870 03861  | .1606 96543  | .9246 04377  | .1688 94191  |
| 1.4095 | 0.9870 19925 | 0.1605 97842 | 1.9248 21276 | 2.1690 86662 |
| .4096  | .9870 35980  | .1604 99139  | .9250 38195  | .1692 79155  |
| .4097  | .9870 52025  | .1604 00434  | .9252 55132  | .1694 71669  |
| .4098  | .9870 68060  | .1603 01728  | .9254 72089  | .1696 64206  |
| .4099  | .9870 84086  | .1602 03021  | .9256 89065  | .1698 56764  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.4100 | 0.9871 00101 | 0.1801 04312 | 1.8258 00080 | 2.1700 43344 |
| .4101  | .9871 16107  | .1600 05601  | .8261 23075  | .1702 41845  |
| .4102  | .9871 32102  | .1599 06888  | .9263 40109  | .1704 34588  |
| .4103  | .9871 48098  | .1598 08174  | .9265 57162  | .1706 27213  |
| .4104  | .9871 64064  | .1597 09459  | .9267 74234  | .1708 19890  |
| 1.4105 | 0.9871 80030 | 0.1598 10742 | 1.9269 91326 | 2.1710 12568 |
| .4106  | .9871 95986  | .1595 12023  | .9272 08437  | .1712 05279  |
| .4107  | .9872 11932  | .1594 13302  | .9274 25567  | .1713 98010  |
| .4108  | .9872 27869  | .1593 14580  | .9276 42716  | .1715 90763  |
| .4109  | .9872 43795  | .1592 15857  | .9278 59835  | .1717 83533  |
| 1.4110 | 0.9872 59712 | 0.1591 17132 | 1.9280 77073 | 2.1719 76335 |
| .4111  | .9872 75619  | .1590 18405  | .9282 94280  | .1721 69154  |
| .4112  | .9872 91515  | .1589 19676  | .9285 11507  | .1723 61994  |
| .4113  | .9873 07402  | .1588 20946  | .9287 28753  | .1725 54856  |
| .4114  | .9873 23280  | .1587 22215  | .9289 46018  | .1727 47740  |
| 1.4115 | 0.9873 39147 | 0.1586 23482 | 1.9291 63302 | 2.1729 40645 |
| .4116  | .9873 55004  | .1585 24747  | .9293 80606  | .1731 33572  |
| .4117  | .9873 70852  | .1584 26011  | .9295 97929  | .1733 26521  |
| .4118  | .9873 86690  | .1583 27273  | .9298 15271  | .1735 19492  |
| .4119  | .9874 02517  | .1582 28534  | .9300 32633  | .1737 12484  |
| 1.4120 | 0.9874 18335 | 0.1581 29792 | 1.9302 50014 | 2.1739 05488 |
| .4121  | .9874 34143  | .1580 31050  | .9304 67414  | .1740 98534  |
| .4122  | .9874 49941  | .1579 32306  | .9306 84834  | .1742 91592  |
| .4123  | .9874 65730  | .1578 33560  | .9309 02272  | .1744 84671  |
| .4124  | .9874 81508  | .1577 34812  | .9311 19730  | .1746 77772  |
| 1.4125 | 0.9874 97277 | 0.1576 36064 | 1.9313 37208 | 2.1748 70895 |
| .4126  | .9875 13035  | .1575 37313  | .9315 54705  | .1750 64040  |
| .4127  | .9875 28784  | .1574 38561  | .9317 72221  | .1752 57206  |
| .4128  | .9875 44523  | .1573 39807  | .9319 89756  | .1754 50394  |
| .4129  | .9875 60252  | .1572 41052  | .9322 07311  | .1756 43604  |
| 1.4130 | 0.9875 75971 | 0.1571 42295 | 1.9324 24985 | 2.1758 36836 |
| .4131  | .9875 91681  | .1570 43537  | .9326 42478  | .1760 30089  |
| .4132  | .9876 07380  | .1569 44777  | .9328 60091  | .1762 23364  |
| .4133  | .9876 23070  | .1568 46015  | .9330 77723  | .1764 16661  |
| .4134  | .9876 38749  | .1567 47252  | .9332 95374  | .1766 09980  |
| 1.4135 | 0.9876 54419 | 0.1566 48488 | 1.9335 13045 | 2.1768 03320 |
| .4136  | .9876 70079  | .1565 49721  | .9337 30735  | .1769 96682  |
| .4137  | .9876 85729  | .1564 50954  | .9339 48444  | .1771 90066  |
| .4138  | .9877 01369  | .1563 52184  | .9341 66173  | .1773 83472  |
| .4139  | .9877 16999  | .1562 53413  | .9343 83921  | .1775 76900  |
| 1.4140 | 0.9877 32620 | 0.1561 54641 | 1.9346 01688 | 2.1777 70349 |
| .4141  | .9877 48230  | .1560 55867  | .9348 19475  | .1779 63820  |
| .4142  | .9877 63831  | .1559 57091  | .9350 37281  | .1781 57313  |
| .4143  | .9877 79422  | .1558 58314  | .9352 55106  | .1783 50827  |
| .4144  | .9877 95003  | .1557 59535  | .9354 72951  | .1785 44384  |
| 1.4145 | 0.9878 10574 | 0.1556 60755 | 1.9356 90815 | 2.1787 37922 |
| .4146  | .9878 26135  | .1555 61973  | .9359 08699  | .1789 31502  |
| .4147  | .9878 41686  | .1554 63190  | .9361 26602  | .1791 25104  |
| .4148  | .9878 57227  | .1553 64405  | .9363 44524  | .1793 18727  |
| .4149  | .9878 72759  | .1552 65618  | .9365 62465  | .1795 12373  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.4150 | 0.9878 88281 | 0.1551 66830 | 1.9367 80426 | 2.1797 06040 |
| .4151  | .9879 03792  | .1550 68041  | .9369 98407  | .1798 99729  |
| .4152  | .9879 19294  | .1549 69250  | .9372 16406  | .1800 93439  |
| .4153  | .9879 34786  | .1548 70457  | .9374 34425  | .1802 87172  |
| .4154  | .9879 50268  | .1547 71663  | .9376 52464  | .1804 80926  |
| 1.4155 | 0.9879 65740 | 0.1546 72867 | 1.9376 70521 | 2.1806 74702 |
| .4156  | .9879 81203  | .1545 74069  | .9380 88599  | .1808 68500  |
| .4157  | .9879 96655  | .1544 75271  | .9383 06695  | .1810 62320  |
| .4158  | .9880 12098  | .1543 76470  | .9385 24811  | .1812 56162  |
| .4159  | .9880 27531  | .1542 77668  | .9387 42946  | .1814 50025  |
| 1.4160 | 0.9880 42953 | 0.1541 78865 | 1.9389 61101 | 2.1816 43910 |
| .4161  | .9880 58366  | .1540 80060  | .9391 79275  | .1818 37817  |
| .4162  | .9880 73769  | .1539 81253  | .9393 97469  | .1820 31746  |
| .4163  | .9880 89163  | .1538 82445  | .9396 15681  | .1822 25697  |
| .4164  | .9881 04546  | .1537 83635  | .9398 33914  | .1824 19669  |
| 1.4165 | 0.9881 19919 | 0.1536 84824 | 1.9400 52165 | 2.1826 13664 |
| .4166  | .9881 35283  | .1535 86011  | .9402 70436  | .1828 07680  |
| .4167  | .9881 50636  | .1534 87197  | .9404 88727  | .1830 01718  |
| .4168  | .9881 65980  | .1533 88381  | .9407 07037  | .1831 95777  |
| .4169  | .9881 81314  | .1532 89564  | .9409 25366  | .1833 89859  |
| 1.4170 | 0.9881 96638 | 0.1531 90745 | 1.9411 43715 | 2.1835 83963 |
| .4171  | .9882 11952  | .1530 91924  | .9413 62083  | .1837 78038  |
| .4172  | .9882 27257  | .1529 93102  | .9415 80470  | .1839 72235  |
| .4173  | .9882 42551  | .1528 94279  | .9417 98877  | .1841 66404  |
| .4174  | .9882 57835  | .1527 95454  | .9420 17304  | .1843 60595  |
| 1.4175 | 0.9882 73110 | 0.1526 96627 | 1.9422 35749 | 2.1845 54807 |
| .4176  | .9882 88375  | .1525 97799  | .9424 54215  | .1847 49042  |
| .4177  | .9883 03630  | .1524 98970  | .9426 72699  | .1849 43298  |
| .4178  | .9883 18875  | .1524 00138  | .9428 91203  | .1851 37576  |
| .4179  | .9883 34110  | .1523 01306  | .9431 09727  | .1853 31876  |
| 1.4180 | 0.9883 49335 | 0.1522 02472 | 1.9433 28270 | 2.1855 26198 |
| .4181  | .9883 64550  | .1521 03636  | .9435 46832  | .1857 20542  |
| .4182  | .9883 79756  | .1520 04799  | .9437 65414  | .1859 14908  |
| .4183  | .9883 94951  | .1519 05960  | .9439 84015  | .1861 09295  |
| .4184  | .9884 10137  | .1518 07120  | .9442 02636  | .1863 03705  |
| 1.4185 | 0.9884 25312 | 0.1517 08278 | 1.9444 21276 | 2.1864 98136 |
| .4186  | .9884 40478  | .1516 09435  | .9446 39935  | .1866 92589  |
| .4187  | .9884 55634  | .1515 10590  | .9448 58614  | .1868 87064  |
| .4188  | .9884 70781  | .1514 11744  | .9450 77313  | .1870 81561  |
| .4189  | .9884 85917  | .1513 12896  | .9452 96031  | .1872 76079  |
| 1.4190 | 0.9885 01043 | 0.1512 14046 | 1.9455 14768 | 2.1874 70620 |
| .4191  | .9885 16160  | .1511 15196  | .9457 33525  | .1876 65182  |
| .4192  | .9885 31266  | .1510 16343  | .9459 52301  | .1878 59766  |
| .4193  | .9885 46363  | .1509 17489  | .9461 71097  | .1880 54373  |
| .4194  | .9885 61450  | .1508 18634  | .9463 89912  | .1882 49001  |
| 1.4195 | 0.9885 76527 | 0.1507 19777 | 1.9466 08746 | 2.1884 43651 |
| .4196  | .9885 91594  | .1506 20919  | .9468 27601  | .1886 38322  |
| .4197  | .9886 06651  | .1505 22059  | .9470 46474  | .1888 33016  |
| .4198  | .9886 21698  | .1504 23197  | .9472 65367  | .1890 27732  |
| .4199  | .9886 36735  | .1503 24334  | .9474 84280  | .1892 22469  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.4200 | 0.9886 51763 | 0.1502 25470 | 1.9477 03212 | 2.1894 17229 |
| .4201  | .9886 66780  | .1501 26604  | .9479 22163  | .1895 12010  |
| .4202  | .9886 81788  | .1500 27737  | .9481 41134  | .1898 06813  |
| .4203  | .9886 96786  | .1499 28868  | .9483 60125  | .1900 01638  |
| .4204  | .9887 11774  | .1498 29997  | .9485 79134  | .1901 96485  |
| 1.4205 | 0.9887 26752 | 0.1497 31125 | 1.9487 98164 | 2.1903 91354 |
| .4206  | .9887 41720  | .1496 32252  | .9490 17213  | .1905 86245  |
| .4207  | .9887 56678  | .1495 33377  | .9492 36281  | .1907 81157  |
| .4208  | .9887 71627  | .1494 34501  | .9494 55369  | .1909 76092  |
| .4209  | .9887 86565  | .1493 35623  | .9496 74476  | .1911 71048  |
| 1.4210 | 0.9888 01494 | 0.1492 36743 | 1.9498 93603 | 2.1913 66027 |
| .4211  | .9888 16413  | .1491 37862  | .9501 12749  | .1915 61027  |
| .4212  | .9888 31322  | .1490 38980  | .9503 31915  | .1917 56049  |
| .4213  | .9888 46220  | .1489 40096  | .9505 51101  | .1919 51094  |
| .4214  | .9888 61110  | .1488 41211  | .9507 70306  | .1921 46160  |
| 1.4215 | 0.9888 75989 | 0.1487 42324 | 1.9509 89530 | 2.1923 41248 |
| .4216  | .9888 90858  | .1486 43435  | .9512 08774  | .1925 36357  |
| .4217  | .9889 05717  | .1485 44546  | .9514 28037  | .1927 31489  |
| .4218  | .9889 20567  | .1484 45654  | .9516 47320  | .1929 26643  |
| .4219  | .9889 35407  | .1483 46762  | .9518 66623  | .1931 21819  |
| 1.4220 | 0.9889 50236 | 0.1482 47867 | 1.9520 85944 | 2.1933 17016 |
| .4221  | .9889 65056  | .1481 48971  | .9523 05286  | .1935 12236  |
| .4222  | .9889 79866  | .1480 50074  | .9525 24647  | .1937 07477  |
| .4223  | .9889 94666  | .1479 51176  | .9527 44027  | .1939 02741  |
| .4224  | .9890 09456  | .1478 52275  | .9529 63427  | .1940 98026  |
| 1.4225 | 0.9890 24237 | 0.1477 53374 | 1.9531 82847 | 2.1942 93334 |
| .4226  | .9890 39007  | .1476 54470  | .9534 02286  | .1944 88663  |
| .4227  | .9890 53767  | .1475 55566  | .9536 21745  | .1946 84014  |
| .4228  | .9890 68518  | .1474 56660  | .9538 41223  | .1948 79387  |
| .4229  | .9890 83259  | .1473 57752  | .9540 60721  | .1950 74782  |
| 1.4230 | 0.9890 97990 | 0.1472 58843 | 1.9542 80238 | 2.1952 70199 |
| .4231  | .9891 12711  | .1471 59933  | .9544 99775  | .1954 65638  |
| .4232  | .9891 27422  | .1470 61021  | .9547 19331  | .1956 61099  |
| .4233  | .9891 42123  | .1469 62107  | .9549 38907  | .1958 56582  |
| .4234  | .9891 56814  | .1468 63192  | .9551 58502  | .1960 52087  |
| 1.4235 | 0.9891 71495 | 0.1467 64276 | 1.9553 78117 | 2.1962 47614 |
| .4236  | .9891 86167  | .1466 65358  | .9555 97752  | .1964 43163  |
| .4237  | .9892 00829  | .1465 66438  | .9558 17406  | .1966 38733  |
| .4238  | .9892 15480  | .1464 67518  | .9560 37080  | .1968 34326  |
| .4239  | .9892 30122  | .1463 68595  | .9562 56773  | .1970 29941  |
| 1.4240 | 0.9892 44754 | 0.1462 69672 | 1.9564 76486 | 2.1972 25578 |
| .4241  | .9892 59376  | .1461 70746  | .9566 96218  | .1974 21236  |
| .4242  | .9892 73988  | .1460 71820  | .9569 15970  | .1976 16917  |
| .4243  | .9892 88590  | .1459 72892  | .9571 35741  | .1978 12619  |
| .4244  | .9893 03183  | .1458 73962  | .9573 55532  | .1980 08344  |
| 1.4245 | 0.9893 17765 | 0.1457 75031 | 1.9575 75343 | 2.1982 04090 |
| .4246  | .9893 32338  | .1456 76098  | .9577 95173  | .1983 99859  |
| .4247  | .9893 46900  | .1455 77164  | .9580 15023  | .1985 95650  |
| .4248  | .9893 61453  | .1454 78229  | .9582 34892  | .1987 91462  |
| .4249  | .9893 75996  | .1453 79292  | .9584 54781  | .1989 87297  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.4250 | 0.9893 90529 | 0.1452 80354 | 1.9586 74690 | 2.1991 83153 |
| .4251  | .9894 05052  | .1451 81414  | .9588 94618  | .1993 79031  |
| .4252  | .9894 19565  | .1450 82473  | .9591 14566  | .1995 74932  |
| .4253  | .9894 34069  | .1449 83530  | .9593 34533  | .1997 70854  |
| .4254  | .9894 48562  | .1448 84586  | .9595 54520  | .1999 66799  |
| 1.4255 | 0.9894 63045 | 0.1447 85640 | 1.9597 74526 | 2.2001 62765 |
| .4256  | .9894 77519  | .1446 86693  | .9599 94552  | .2003 58754  |
| .4257  | .9894 91983  | .1445 87745  | .9602 14598  | .2005 54764  |
| .4258  | .9895 06437  | .1444 88795  | .9604 34663  | .2007 50797  |
| .4259  | .9895 20881  | .1443 89844  | .9606 54748  | .2009 46861  |
| 1.4260 | 0.9895 35315 | 0.1442 90891 | 1.9608 74853 | 2.2011 42928 |
| .4261  | .9895 49739  | .1441 91937  | .9610 94977  | .2013 39026  |
| .4262  | .9895 64153  | .1440 92981  | .9613 15120  | .2015 35147  |
| .4263  | .9895 78557  | .1439 94024  | .9615 35284  | .2017 31289  |
| .4264  | .9895 92952  | .1438 95065  | .9617 55467  | .2019 27454  |
| 1.4265 | 0.9896 07336 | 0.1437 96105 | 1.9619 75669 | 2.2021 23641 |
| .4266  | .9896 21711  | .1436 97144  | .9621 95891  | .2023 19849  |
| .4267  | .9896 36076  | .1435 98181  | .9624 16133  | .2025 16079  |
| .4268  | .9896 50431  | .1434 99217  | .9626 36395  | .2027 12332  |
| .4269  | .9896 64776  | .1434 00251  | .9628 56676  | .2029 08607  |
| 1.4270 | 0.9896 79111 | 0.1433 01284 | 1.9630 76976 | 2.2031 04903 |
| .4271  | .9896 93436  | .1432 02315  | .9632 97297  | .2033 01222  |
| .4272  | .9897 07751  | .1431 03345  | .9635 17637  | .2034 97563  |
| .4273  | .9897 22057  | .1430 04373  | .9637 37996  | .2036 93926  |
| .4274  | .9897 36352  | .1429 05400  | .9639 58375  | .2038 90310  |
| 1.4275 | 0.9897 50638 | 0.1428 06426 | 1.9641 78774 | 2.2040 86717 |
| .4276  | .9897 64913  | .1427 07450  | .9643 99193  | .2042 83146  |
| .4277  | .9897 79179  | .1426 08473  | .9646 19631  | .2044 79597  |
| .4278  | .9897 93435  | .1425 09495  | .9648 40089  | .2046 76070  |
| .4279  | .9898 07681  | .1424 10514  | .9650 60566  | .2048 72565  |
| 1.4280 | 0.9898 21917 | 0.1423 11533 | 1.9652 81063 | 2.2050 69082 |
| .4281  | .9898 36143  | .1422 12550  | .9655 01580  | .2052 65621  |
| .4282  | .9898 50360  | .1421 13566  | .9657 22116  | .2054 62183  |
| .4283  | .9898 64566  | .1420 14580  | .9659 42672  | .2056 58766  |
| .4284  | .9898 78763  | .1419 15593  | .9661 63248  | .2058 55371  |
| 1.4285 | 0.9898 92949 | 0.1418 16604 | 1.9663 83843 | 2.2060 51998 |
| .4286  | .9899 07126  | .1417 17614  | .9666 04458  | .2062 48648  |
| .4287  | .9899 21293  | .1416 18623  | .9668 25093  | .2064 45319  |
| .4288  | .9899 35450  | .1415 19630  | .9670 45748  | .2066 42013  |
| .4289  | .9899 49597  | .1414 20636  | .9672 66422  | .2068 38728  |
| 1.4290 | 0.9899 63734 | 0.1413 21640 | 1.9674 87115 | 2.2070 35436 |
| .4291  | .9899 77861  | .1412 22643  | .9677 07829  | .2072 32224  |
| .4292  | .9899 91978  | .1411 23645  | .9679 28562  | .2074 29008  |
| .4293  | .9900 06086  | .1410 24645  | .9681 49314  | .2076 25812  |
| .4294  | .9900 20183  | .1409 25643  | .9683 70087  | .2078 22638  |
| 1.4295 | 0.9900 34271 | 0.1408 26641 | 1.9685 90879 | 2.2080 19486 |
| .4296  | .9900 48348  | .1407 27636  | .9688 11691  | .2082 16356  |
| .4297  | .9900 62416  | .1406 28631  | .9690 32522  | .2084 13248  |
| .4298  | .9900 76474  | .1405 29624  | .9692 53373  | .2086 10162  |
| .4299  | .9900 90522  | .1404 30616  | .9694 74244  | .2088 07099  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.4300 | 0.9901 04560 | 0.1403 31606 | 1.9696 95135 | 2.2090 04057 |
| .4301  | .9901 18589  | .1402 32595  | .9699 16045  | .2092 01033  |
| .4302  | .9901 32607  | .1401 33582  | .9701 36975  | .2093 93040  |
| .4303  | .9901 46615  | .1400 34568  | .9703 57925  | .2095 95065  |
| .4304  | .9901 60614  | .1399 35553  | .9705 78894  | .2097 92112  |
| 1.4305 | 0.9901 74602 | 0.1398 36536 | 1.9707 99883 | 2.2099 89181 |
| .4306  | .9901 88581  | .1397 37519  | .9710 20392  | .2101 86272  |
| .4307  | .9902 02550  | .1396 38493  | .9712 41920  | .2103 83385  |
| .4308  | .9902 16509  | .1395 39477  | .9714 62969  | .2105 80520  |
| .4309  | .9902 30458  | .1394 40455  | .9716 84036  | .2107 77678  |
| 1.4310 | 0.9902 44397 | 0.1393 41431 | 1.9719 05124 | 2.2109 74857 |
| .4311  | .9902 58326  | .1392 42406  | .9721 26231  | .2111 72059  |
| .4312  | .9902 72245  | .1391 43380  | .9723 47359  | .2113 69282  |
| .4313  | .9902 86155  | .1390 44352  | .9725 68505  | .2115 66528  |
| .4314  | .9903 00054  | .1389 45322  | .9727 89672  | .2117 63796  |
| 1.4315 | 0.9903 13944 | 0.1388 46292 | 1.9730 10858 | 2.2119 61086 |
| .4316  | .9903 27823  | .1387 47260  | .9732 32064  | .2121 58398  |
| .4317  | .9903 41693  | .1386 48226  | .9734 53290  | .2123 55732  |
| .4318  | .9903 55553  | .1385 49191  | .9736 74535  | .2125 53039  |
| .4319  | .9903 69403  | .1384 50155  | .9738 95800  | .2127 50467  |
| 1.4320 | 0.9903 83243 | 0.1383 51117 | 1.9741 17085 | 2.2129 47868 |
| .4321  | .9903 97073  | .1382 52078  | .9743 38390  | .2131 45291  |
| .4322  | .9904 10894  | .1381 53038  | .9745 59714  | .2133 42736  |
| .4323  | .9904 24704  | .1380 53996  | .9747 81058  | .2135 40203  |
| .4324  | .9904 38504  | .1379 54953  | .9750 02422  | .2137 37692  |
| 1.4325 | 0.9904 52295 | 0.1378 55908 | 1.9752 23806 | 2.2139 35203 |
| .4326  | .9904 66076  | .1377 56863  | .9754 45209  | .2141 32757  |
| .4327  | .9904 79846  | .1376 57815  | .9756 66633  | .2143 30292  |
| .4328  | .9904 93607  | .1375 58767  | .9758 88075  | .2145 27870  |
| .4329  | .9905 07358  | .1374 59717  | .9761 09538  | .2147 25470  |
| 1.4330 | 0.9905 21099 | 0.1373 60665 | 1.9763 31021 | 2.2149 23092 |
| .4331  | .9905 34830  | .1372 61612  | .9765 52523  | .2151 20736  |
| .4332  | .9905 48551  | .1371 62558  | .9767 74045  | .2153 18402  |
| .4333  | .9905 62263  | .1370 63503  | .9769 95586  | .2155 16091  |
| .4334  | .9905 75964  | .1369 64446  | .9772 17148  | .2157 13801  |
| 1.4335 | 0.9905 89656 | 0.1368 65387 | 1.9774 38729 | 2.2159 11534 |
| .4336  | .9906 03337  | .1367 66328  | .9776 60330  | .2161 09289  |
| .4337  | .9906 17009  | .1366 67267  | .9778 81951  | .2163 07066  |
| .4338  | .9906 30671  | .1365 68204  | .9781 03592  | .2165 04866  |
| .4339  | .9906 44322  | .1364 69141  | .9783 25252  | .2167 02687  |
| 1.4340 | 0.9906 57964 | 0.1363 70076 | 1.9785 46932 | 2.2169 00531 |
| .4341  | .9906 71596  | .1362 71009  | .9787 68632  | .2170 98396  |
| .4342  | .9906 85219  | .1361 71941  | .9789 90352  | .2172 96284  |
| .4343  | .9906 98831  | .1360 72872  | .9792 12091  | .2174 94195  |
| .4344  | .9907 12433  | .1359 73801  | .9794 33851  | .2176 92127  |
| 1.4345 | 0.9907 26026 | 0.1358 74730 | 1.9796 55630 | 2.2178 90081 |
| .4346  | .9907 39608  | .1357 75656  | .9798 77429  | .2180 88058  |
| .4347  | .9907 53181  | .1356 76582  | .9800 99247  | .2182 86057  |
| .4348  | .9907 66743  | .1355 77506  | .9803 21086  | .2184 84078  |
| .4349  | .9907 80296  | .1354 78428  | .9805 42944  | .2186 82121  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.4350 | 0.9907 93839 | 0.1353 79350 | 1.9907 84822 | 2.2138 80186 |
| .4351  | .9908 07372  | .1352 80269  | .9909 88720  | .2190 78274  |
| .4352  | .9909 20895  | .1351 81188  | .9812 08633  | .2192 76384  |
| .4353  | .9908 34408  | .1350 82105  | .9814 30876  | .2194 74516  |
| .4354  | .9908 47912  | .1349 83021  | .9816 52833  | .2196 72670  |
| 1.4355 | 0.9908 61405 | 0.1348 83936 | 1.9818 74510 | 2.2198 70846 |
| .4356  | .9908 74983  | .1347 84849  | .9820 26507  | .2200 69045  |
| .4357  | .9908 88362  | .1346 85761  | .9823 13524  | .2202 67266  |
| .4358  | .9909 01826  | .1345 86671  | .9825 40561  | .2204 65508  |
| .4359  | .9909 15279  | .1344 87580  | .9827 62617  | .2206 63774  |
| 1.4360 | 0.9909 28723 | 0.1343 88488 | 1.9829 84693 | 2.2208 62061 |
| .4361  | .9909 42157  | .1342 89395  | .9832 06739  | .2210 60371  |
| .4362  | .9909 55581  | .1341 90300  | .9834 28905  | .2212 58702  |
| .4363  | .9909 68995  | .1340 91204  | .9836 51041  | .2214 57056  |
| .4364  | .9909 82399  | .1339 92106  | .9838 73197  | .2216 55433  |
| 1.4365 | 0.9909 95793 | 0.1338 93007 | 1.9840 95372 | 2.2218 53831 |
| .4366  | .9910 09178  | .1337 93907  | .9843 17563  | .2220 52252  |
| .4367  | .9910 22552  | .1336 94805  | .9845 39783  | .2222 50695  |
| .4368  | .9910 35917  | .1335 95702  | .9847 62018  | .2224 49160  |
| .4369  | .9910 49271  | .1334 96598  | .9849 84273  | .2226 47647  |
| 1.4370 | 0.9910 62616 | 0.1333 97492 | 1.9852 06547 | 2.2228 46156 |
| .4371  | .9910 75951  | .1332 98385  | .9854 28842  | .2230 44688  |
| .4372  | .9910 89276  | .1331 99277  | .9856 51156  | .2232 43242  |
| .4373  | .9911 02591  | .1331 00168  | .9858 73490  | .2234 41818  |
| .4374  | .9911 15896  | .1330 01057  | .9860 95845  | .2236 40417  |
| 1.4375 | 0.9911 29191 | 0.1329 01944 | 1.9863 18219 | 2.2238 39038 |
| .4376  | .9911 42474  | .1328 02831  | .9865 40612  | .2240 37681  |
| .4377  | .9911 55752  | .1327 03716  | .9867 63026  | .2242 36346  |
| .4378  | .9911 69017  | .1326 04600  | .9869 85460  | .2244 35033  |
| .4379  | .9911 82272  | .1325 05482  | .9872 07913  | .2246 33745  |
| 1.4380 | 0.9911 95518 | 0.1324 06363 | 1.9874 30386 | 2.2248 32475 |
| .4381  | .9912 08754  | .1323 07243  | .9876 52880  | .2250 31229  |
| .4382  | .9912 21979  | .1322 08122  | .9878 75393  | .2252 30005  |
| .4383  | .9912 35195  | .1321 08999  | .9880 97926  | .2254 28804  |
| .4384  | .9912 48401  | .1320 09874  | .9883 20478  | .2256 27625  |
| 1.4385 | 0.9912 61597 | 0.1319 10749 | 1.9885 43051 | 2.2258 26468 |
| .4386  | .9912 74783  | .1318 11622  | .9887 65644  | .2260 25334  |
| .4387  | .9912 87960  | .1317 12494  | .9889 88256  | .2262 24221  |
| .4388  | .9913 01126  | .1316 13365  | .9892 10889  | .2264 23131  |
| .4389  | .9913 14282  | .1315 14234  | .9894 33541  | .2266 22063  |
| 1.4390 | 0.9913 27429 | 0.1314 15102 | 1.9896 56213 | 2.2268 21018 |
| .4391  | .9913 40565  | .1313 15968  | .9898 78905  | .2270 19995  |
| .4392  | .9913 53692  | .1312 16834  | .9901 01617  | .2272 18994  |
| .4393  | .9913 66809  | .1311 17698  | .9903 24349  | .2274 18015  |
| .4394  | .9913 79916  | .1310 18560  | .9905 47101  | .2276 17059  |
| 1.4395 | 0.9913 93012 | 0.1309 19422 | 1.9907 69372 | 2.2278 16124 |
| .4396  | .9914 06099  | .1308 20282  | .9909 92664  | .2280 15213  |
| .4397  | .9914 19176  | .1307 21140  | .9912 15475  | .2282 14323  |
| .4398  | .9914 32244  | .1306 21998  | .9914 38307  | .2284 13456  |
| .4399  | .9914 45301  | .1305 22854  | .9916 61158  | .2286 12611  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 1.4400 | 0.9914 58348 | 0.1304 23709 | 1.9918 84029 | 2.2288 11788 |
| .4401  | .9914 71386  | .1303 24562  | .9921 06920  | .2290 10987  |
| .4402  | .9914 84413  | .1302 25414  | .9923 29831  | .2292 10209  |
| .4403  | .9914 97431  | .1301 26265  | .9925 52762  | .2294 09453  |
| .4404  | .9915 10438  | .1300 27115  | .9927 75713  | .2296 08720  |
| 1.4405 | 0.9915 23436 | 0.1299 27963 | 1.9929 98684 | 2.2298 08008 |
| .4406  | .9915 36424  | .1298 28810  | .9932 21675  | .2300 07320  |
| .4407  | .9915 49402  | .1297 29656  | .9934 44686  | .2302 06653  |
| .4408  | .9915 62370  | .1296 30500  | .9936 67716  | .2304 06008  |
| .4409  | .9915 75328  | .1295 31344  | .9938 90767  | .2306 05386  |
| 1.4410 | 0.9915 88276 | 0.1294 32185 | 1.9941 13837 | 2.2308 04787 |
| .4411  | .9916 01214  | .1293 33026  | .9943 36928  | .2310 04209  |
| .4412  | .9916 14143  | .1292 33865  | .9945 60038  | .2312 03654  |
| .4413  | .9916 27061  | .1291 34703  | .9947 83168  | .2314 03121  |
| .4414  | .9916 39970  | .1290 35540  | .9950 06319  | .2316 02611  |
| 1.4415 | 0.9916 52868 | 0.1289 36375 | 1.9952 29489 | 2.2318 02122 |
| .4416  | .9916 65757  | .1288 37209  | .9954 52679  | .2320 01657  |
| .4417  | .9916 78636  | .1287 38042  | .9956 75889  | .2322 01213  |
| .4418  | .9916 91505  | .1286 38873  | .9958 99119  | .2324 00792  |
| .4419  | .9917 04364  | .1285 39704  | .9961 22369  | .2326 00393  |
| 1.4420 | 0.9917 17213 | 0.1284 40533 | 1.9963 45639 | 2.2328 00016 |
| .4421  | .9917 30052  | .1283 41360  | .9965 68929  | .2329 99662  |
| .4422  | .9917 42881  | .1282 42187  | .9967 92239  | .2331 99330  |
| .4423  | .9917 55700  | .1281 43012  | .9970 15569  | .2333 99020  |
| .4424  | .9917 68509  | .1280 43835  | .9972 38919  | .2335 98733  |
| 1.4425 | 0.9917 81309 | 0.1279 44658 | 1.9974 62289 | 2.2337 98468 |
| .4426  | .9917 94098  | .1278 45479  | .9976 85679  | .2339 98226  |
| .4427  | .9918 06878  | .1277 46299  | .9979 09089  | .2341 98005  |
| .4428  | .9918 19648  | .1276 47118  | .9981 32519  | .2343 97807  |
| .4429  | .9918 32407  | .1275 47935  | .9983 55968  | .2345 97632  |
| 1.4430 | 0.9918 45157 | 0.1274 48751 | 1.9985 79438 | 2.2347 97479 |
| .4431  | .9918 57897  | .1273 49566  | .9988 02928  | .2349 97348  |
| .4432  | .9918 70627  | .1272 50380  | .9990 26438  | .2351 97239  |
| .4433  | .9918 83347  | .1271 51192  | .9992 49967  | .2353 97153  |
| .4434  | .9918 96057  | .1270 52003  | .9994 73517  | .2355 97089  |
| 1.4435 | 0.9919 08758 | 0.1269 52813 | 1.9996 97087 | 2.2357 97048 |
| .4436  | .9919 21448  | .1268 53621  | .9999 20676  | .2359 97029  |
| .4437  | .9919 34128  | .1267 54428  | 2.0001 44286 | .2361 97032  |
| .4438  | .9919 46799  | .1266 55234  | .0003 67916  | .2363 97057  |
| .4439  | .9919 59459  | .1265 56039  | .0005 91565  | .2365 97105  |
| 1.4440 | 0.9919 72110 | 0.1264 56843 | 2.0008 15235 | 2.2367 97176 |
| .4441  | .9919 84751  | .1263 57645  | .0010 38925  | .2369 97268  |
| .4442  | .9919 97382  | .1262 58446  | .0012 62635  | .2371 97384  |
| .4443  | .9920 10002  | .1261 59245  | .0014 86364  | .2373 97521  |
| .4444  | .9920 22613  | .1260 60044  | .0017 10114  | .2375 97681  |
| 1.4445 | 0.9920 35214 | 0.1259 60841 | 2.0019 33884 | 2.2377 97863 |
| .4446  | .9920 47806  | .1258 61637  | .0021 57674  | .2379 98068  |
| .4447  | .9920 60387  | .1257 62431  | .0023 81484  | .2381 98295  |
| .4448  | .9920 72958  | .1256 63224  | .0026 05313  | .2383 98544  |
| .4449  | .9920 85519  | .1255 64017  | .0028 29163  | .2385 98816  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.4450 | 0.9920 98071 | 0.1254 64807 | 2.0030 53033 | 2.2387 99110 |
| .4451  | .9921 10612  | .1253 65597  | .0032 76923  | .2389 99426  |
| .4452  | .9921 23144  | .1252 66385  | .0035 00833  | .2391 99765  |
| .4453  | .9921 35666  | .1251 67172  | .0037 24763  | .2394 00126  |
| .4454  | .9921 48177  | .1250 67958  | .0039 48713  | .2396 00510  |
| 1.4455 | 0.9921 60679 | 0.1249 68743 | 2.0041 72683 | 2.2398 00916 |
| .4456  | .9921 73171  | .1248 69526  | .0043 96673  | .2400 01345  |
| .4457  | .9921 85653  | .1247 70308  | .0046 20683  | .2402 01795  |
| .4458  | .9921 98125  | .1246 71089  | .0048 44714  | .2404 02269  |
| .4459  | .9922 10587  | .1245 71868  | .0050 68764  | .2406 02764  |
| 1.4460 | 0.9922 23040 | 0.1244 72647 | 2.0052 92834 | 2.2408 03282 |
| .4461  | .9922 35482  | .1243 73424  | .0055 16924  | .2410 03823  |
| .4462  | .9922 47914  | .1242 74200  | .0057 41035  | .2412 04386  |
| .4463  | .9922 60337  | .1241 74974  | .0059 65165  | .2414 04971  |
| .4464  | .9922 72749  | .1240 75748  | .0061 89316  | .2416 05579  |
| 1.4465 | 0.9922 85152 | 0.1239 76520 | 2.0064 13486 | 2.2418 06209 |
| .4466  | .9922 97545  | .1238 77291  | .0066 37677  | .2420 06862  |
| .4467  | .9923 09927  | .1237 78060  | .0068 61888  | .2422 07537  |
| .4468  | .9923 22300  | .1236 78829  | .0070 86119  | .2424 08234  |
| .4469  | .9923 34663  | .1235 79596  | .0073 10370  | .2426 08954  |
| 1.4470 | 0.9923 47016 | 0.1234 80362 | 2.0075 34640 | 2.2428 09696 |
| .4471  | .9923 59359  | .1233 81126  | .0077 58931  | .2430 10461  |
| .4472  | .9923 71692  | .1232 81890  | .0079 83243  | .2432 11248  |
| .4473  | .9923 84016  | .1231 82652  | .0082 07574  | .2434 12057  |
| .4474  | .9923 96329  | .1230 83413  | .0084 31925  | .2436 12889  |
| 1.4475 | 0.9924 08632 | 0.1229 84173 | 2.0086 56296 | 2.2438 13744 |
| .4476  | .9924 20926  | .1228 84931  | .0088 80688  | .2440 14621  |
| .4477  | .9924 33209  | .1227 85689  | .0091 05099  | .2442 15520  |
| .4478  | .9924 45483  | .1226 86445  | .0093 29531  | .2444 16442  |
| .4479  | .9924 57746  | .1225 87199  | .0095 53982  | .2446 17386  |
| 1.4480 | 0.9924 70000 | 0.1224 87953 | 2.0097 78454 | 2.2448 18352 |
| .4481  | .9924 82244  | .1223 88705  | .0100 02946  | .2450 19341  |
| .4482  | .9924 94478  | .1222 89457  | .0102 27458  | .2452 20353  |
| .4483  | .9925 06702  | .1221 90207  | .0104 51990  | .2454 21387  |
| .4484  | .9925 18916  | .1220 90955  | .0106 76542  | .2456 22443  |
| 1.4485 | 0.9925 31120 | 0.1219 91703 | 2.0109 01115 | 2.2458 23522 |
| .4486  | .9925 43314  | .1218 92449  | .0111 25707  | .2460 24624  |
| .4487  | .9925 55499  | .1217 93194  | .0113 50320  | .2462 25747  |
| .4488  | .9925 67673  | .1216 93938  | .0115 74952  | .2464 26894  |
| .4489  | .9925 79837  | .1215 94681  | .0117 99605  | .2466 28062  |
| 1.4490 | 0.9925 91992 | 0.1214 95422 | 2.0120 24278 | 2.2468 29254 |
| .4491  | .9926 04137  | .1213 96162  | .0122 48971  | .2470 30467  |
| .4492  | .9926 16271  | .1212 96901  | .0124 73684  | .2472 31703  |
| .4493  | .9926 28396  | .1211 97639  | .0126 98417  | .2474 32962  |
| .4494  | .9926 40511  | .1210 98375  | .0129 23171  | .2476 34243  |
| 1.4495 | 0.9926 52616 | 0.1209 99111 | 2.0131 47944 | 2.2478 35547 |
| .4496  | .9926 64711  | .1208 99845  | .0133 72738  | .2480 36873  |
| .4497  | .9926 76796  | .1208 00578  | .0135 97551  | .2482 38221  |
| .4498  | .9926 88871  | .1207 01310  | .0138 22385  | .2484 39592  |
| .4499  | .9927 00936  | .1206 02040  | .0140 47239  | .2486 40986  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.4500 | 0.9927 12991 | 0.1205 02769 | 2.0142 72114 | 2.2438 42402 |
| .4501  | .9927 25036  | .1204 03497  | .0144 97008  | .2490 43840  |
| .4502  | .9927 37072  | .1203 04224  | .0147 21922  | .2492 45301  |
| .4503  | .9927 49097  | .1202 04950  | .0149 46857  | .2494 46784  |
| .4504  | .9927 61113  | .1201 05675  | .0151 71812  | .2496 48290  |
| 1.4505 | 0.9927 73118 | 0.1200 06398 | 2.0153 96787 | 2.2498 49819 |
| .4506  | .9927 85114  | .1199 07120  | .0156 21782  | .2500 51370  |
| .4507  | .9927 97100  | .1198 07841  | .0158 46797  | .2502 52943  |
| .4508  | .9928 09076  | .1197 08560  | .0160 71832  | .2504 54539  |
| .4509  | .9928 21041  | .1196 09279  | .0162 96838  | .2506 56158  |
| 1.4510 | 0.9928 32997 | 0.1195 09996 | 2.0165 21963 | 2.2508 57799 |
| .4511  | .9928 44943  | .1194 10712  | .0167 47059  | .2510 59462  |
| .4512  | .9928 56880  | .1193 11427  | .0169 72175  | .2512 61148  |
| .4513  | .9928 68806  | .1192 12141  | .0171 97312  | .2514 62856  |
| .4514  | .9928 80722  | .1191 12854  | .0174 22468  | .2516 64587  |
| 1.4515 | 0.9928 92628 | 0.1190 13565 | 2.0176 47644 | 2.2518 66341 |
| .4516  | .9929 04525  | .1189 14275  | .0178 72841  | .2520 68117  |
| .4517  | .9929 16411  | .1188 14984  | .0180 98058  | .2522 69915  |
| .4518  | .9929 28288  | .1187 15692  | .0183 23295  | .2524 71737  |
| .4519  | .9929 40154  | .1186 16398  | .0185 48552  | .2526 73580  |
| 1.4520 | 0.9929 52011 | 0.1185 17104 | 2.0187 73830 | 2.2528 75446 |
| .4521  | .9929 63858  | .1184 17808  | .0189 99128  | .2530 77335  |
| .4522  | .9929 75695  | .1183 18511  | .0192 24445  | .2532 79246  |
| .4523  | .9929 87521  | .1182 19213  | .0194 49783  | .2534 81180  |
| .4524  | .9929 99338  | .1181 19913  | .0196 75142  | .2536 83136  |
| 1.4525 | 0.9930 11145 | 0.1180 20613 | 2.0199 00520 | 2.2538 85115 |
| .4526  | .9930 22943  | .1179 21311  | .0201 25919  | .2540 87116  |
| .4527  | .9930 34730  | .1178 22008  | .0203 51337  | .2542 89140  |
| .4528  | .9930 46507  | .1177 22704  | .0205 76776  | .2544 91186  |
| .4529  | .9930 58274  | .1176 23399  | .0208 02236  | .2546 93255  |
| 1.4530 | 0.9930 70032 | 0.1175 24093 | 2.0210 27715 | 2.2548 95347 |
| .4531  | .9930 81779  | .1174 24785  | .0212 53215  | .2550 97461  |
| .4532  | .9930 93517  | .1173 25476  | .0214 78735  | .2552 99597  |
| .4533  | .9931 05244  | .1172 26166  | .0217 04275  | .2555 10197  |
| .4534  | .9931 16962  | .1171 26855  | .0219 29835  | .2557 03938  |
| 1.4535 | 0.9931 28670 | 0.1170 27543 | 2.0221 55415 | 2.2559 06143 |
| .4536  | .9931 40367  | .1169 28229  | .0223 81016  | .2561 08369  |
| .4537  | .9931 52055  | .1168 28915  | .0226 06637  | .2563 10619  |
| .4538  | .9931 63733  | .1167 29599  | .0228 32278  | .2565 12891  |
| .4539  | .9931 75401  | .1166 30282  | .0230 57940  | .2567 15185  |
| 1.4540 | 0.9931 87059 | 0.1165 30964 | 2.0232 83621 | 2.2569 17502 |
| .4541  | .9931 98707  | .1164 31645  | .0235 09323  | .2571 19842  |
| .4542  | .9932 10345  | .1163 32324  | .0237 35045  | .2573 22204  |
| .4543  | .9932 21974  | .1162 33003  | .0239 60788  | .2575 24589  |
| .4544  | .9932 33592  | .1161 33680  | .0241 86550  | .2577 26996  |
| 1.4545 | 0.9932 45200 | 0.1160 34356 | 2.0244 12333 | 2.2579 29426 |
| .4546  | .9932 56799  | .1159 35031  | .0246 38136  | .2581 31879  |
| .4547  | .9932 68387  | .1158 35705  | .0248 63959  | .2583 34354  |
| .4548  | .9932 79966  | .1157 36377  | .0250 89808  | .2585 36852  |
| .4549  | .9932 91535  | .1156 37049  | .0253 15667  | .2587 39372  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.4550 | 0.9933 03093 | 0.1155 37719 | 2.0255 41551 | 2.2589 41915 |
| .4551  | .9933 14642  | .1154 38388  | .0257 67455  | .2591 44480  |
| .4552  | .9933 26181  | .1153 39056  | .0259 93380  | .2593 47068  |
| .4553  | .9933 37710  | .1152 39723  | .0262 19325  | .2595 49679  |
| .4554  | .9933 49229  | .1151 40388  | .0264 45290  | .2597 52312  |
| 1.4555 | 0.9933 60738 | 0.1150 41053 | 2.0266 71275 | 2.2599 54968 |
| .4556  | .9933 72237  | .1149 41716  | .0268 97281  | .2601 57646  |
| .4557  | .9933 83727  | .1148 42378  | .0271 23307  | .2603 60347  |
| .4558  | .9933 95206  | .1147 43039  | .0273 49353  | .2605 63071  |
| .4559  | .9934 06675  | .1146 43699  | .0275 75419  | .2607 65817  |
| 1.4560 | 0.9934 18135 | 0.1145 44358 | 2.0278 01506 | 2.2609 68586 |
| .4561  | .9934 29584  | .1144 45016  | .0280 27613  | .2611 71378  |
| .4562  | .9934 41024  | .1143 45672  | .0282 53740  | .2613 74192  |
| .4563  | .9934 52453  | .1142 46328  | .0284 79888  | .2615 77028  |
| .4564  | .9934 63873  | .1141 46982  | .0287 06056  | .2617 79888  |
| 1.4565 | 0.9934 75283 | 0.1140 47635 | 2.0289 32244 | 2.2619 82770 |
| .4566  | .9934 86682  | .1139 48287  | .0291 58452  | .2621 85674  |
| .4567  | .9934 98072  | .1138 48937  | .0293 84681  | .2623 88601  |
| .4568  | .9935 09452  | .1137 49587  | .0296 10930  | .2625 91551  |
| .4569  | .9935 20822  | .1136 50236  | .0298 37199  | .2627 94523  |
| 1.4570 | 0.9935 32182 | 0.1135 50883 | 2.0300 63489 | 2.2629 97518 |
| .4571  | .9935 43532  | .1134 51529  | .0302 89799  | .2632 00536  |
| .4572  | .9935 54872  | .1133 52174  | .0305 16129  | .2634 03576  |
| .4573  | .9935 66203  | .1132 52818  | .0307 42479  | .2636 06639  |
| .4574  | .9935 77523  | .1131 53461  | .0309 68850  | .2638 09725  |
| 1.4575 | 0.9935 88833 | 0.1130 54103 | 2.0311 95241 | 2.2640 12833 |
| .4576  | .9936 00134  | .1129 54743  | .0314 21653  | .2642 15964  |
| .4577  | .9936 11424  | .1128 55383  | .0316 48085  | .2644 19117  |
| .4578  | .9936 22705  | .1127 56021  | .0318 74537  | .2646 22294  |
| .4579  | .9936 33976  | .1126 56658  | .0321 01009  | .2648 25492  |
| 1.4580 | 0.9936 45236 | 0.1125 57294 | 2.0323 27502 | 2.2650 28714 |
| .4581  | .9936 56487  | .1124 57929  | .0325 54015  | .2652 31958  |
| .4582  | .9936 67728  | .1123 58563  | .0327 80548  | .2654 35225  |
| .4583  | .9936 78959  | .1122 59195  | .0330 07102  | .2656 38514  |
| .4584  | .9936 90180  | .1121 59827  | .0332 33676  | .2658 41826  |
| 1.4585 | 0.9937 01391 | 0.1120 60457 | 2.0334 60270 | 2.2660 45161 |
| .4586  | .9937 12592  | .1119 61087  | .0336 86885  | .2662 48518  |
| .4587  | .9937 23783  | .1118 61715  | .0339 13520  | .2664 51898  |
| .4588  | .9937 34964  | .1117 62342  | .0341 40175  | .2666 55301  |
| .4589  | .9937 46135  | .1116 62968  | .0343 66851  | .2668 58726  |
| 1.4590 | 0.9937 57297 | 0.1115 63593 | 2.0345 93547 | 2.2670 62174 |
| .4591  | .9937 68448  | .1114 64216  | .0348 20263  | .2672 65645  |
| .4592  | .9937 79590  | .1113 64839  | .0350 47000  | .2674 69138  |
| .4593  | .9937 90721  | .1112 65461  | .0352 73757  | .2676 72654  |
| .4594  | .9938 01843  | .1111 66081  | .0355 00535  | .2678 76193  |
| 1.4595 | 0.9938 12954 | 0.1110 66700 | 2.0357 27332 | 2.2680 79754 |
| .4596  | .9938 24056  | .1109 67318  | .0359 54151  | .2682 83338  |
| .4597  | .9938 35148  | .1108 67935  | .0361 80989  | .2684 86945  |
| .4598  | .9938 46230  | .1107 68551  | .0364 07848  | .2686 90575  |
| .4599  | .9938 57301  | .1106 69166  | .0366 34727  | .2688 94227  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.4600 | 0.9938 68565 | 0.1105 69780 | 2.0368 61627 | 2.2690 97902 |
| .4601  | .9938 79415  | .1104 70392  | .0370 38547  | .2693 01599  |
| .4602  | .9938 90457  | .1103 71004  | .0373 15437  | .2695 06518  |
| .4603  | .9939 01490  | .1102 71614  | .0375 42448  | .2697 09032  |
| .4604  | .9939 12512  | .1101 72224  | .0377 69429  | .2699 12528  |
| 1.4605 | 0.9939 23524 | 0.1100 72832 | 2.0379 96430 | 2.2701 16616 |
| .4606  | .9939 34526  | .1099 73439  | .0382 23452  | .2703 20427  |
| .4607  | .9939 45519  | .1098 74045  | .0384 50494  | .2705 24261  |
| .4608  | .9939 56501  | .1097 74650  | .0386 77557  | .2707 28117  |
| .4609  | .9939 67474  | .1096 75254  | .0389 04640  | .2709 31996  |
| 1.4610 | 0.9939 78436 | 0.1095 75856 | 2.0391 31744 | 2.2711 35893 |
| .4611  | .9939 89389  | .1094 76458  | .0393 58837  | .2713 39823  |
| .4612  | .9940 00332  | .1093 77058  | .0395 86011  | .2715 43770  |
| .4613  | .9940 11264  | .1092 77658  | .0398 13176  | .2717 47740  |
| .4614  | .9940 22187  | .1091 78256  | .0400 40361  | .2719 51732  |
| 1.4615 | 0.9940 33100 | 0.1090 78853 | 2.0402 67566 | 2.2721 55748 |
| .4616  | .9940 44003  | .1089 79450  | .0404 94792  | .2723 59796  |
| .4617  | .9940 54896  | .1088 80045  | .0407 22038  | .2725 63847  |
| .4618  | .9940 65779  | .1087 80639  | .0409 49305  | .2727 67930  |
| .4619  | .9940 76652  | .1086 81231  | .0411 76592  | .2729 72037  |
| 1.4620 | 0.9940 87515 | 0.1085 81823 | 2.0414 03899 | 2.2731 76166 |
| .4621  | .9940 98368  | .1084 82414  | .0416 31227  | .2733 80317  |
| .4622  | .9941 09212  | .1083 83004  | .0418 58575  | .2735 84492  |
| .4623  | .9941 20045  | .1082 83592  | .0420 85944  | .2737 88689  |
| .4624  | .9941 30868  | .1081 84180  | .0423 13333  | .2739 92909  |
| 1.4625 | 0.9941 41682 | 0.1080 84766 | 2.0425 40743 | 2.2741 97152 |
| .4626  | .9941 52485  | .1079 85351  | .0427 68173  | .2744 01417  |
| .4627  | .9941 63279  | .1078 85935  | .0429 95623  | .2746 05705  |
| .4628  | .9941 74062  | .1077 86519  | .0432 23094  | .2748 10016  |
| .4629  | .9941 84836  | .1076 87101  | .0434 50585  | .2750 14350  |
| 1.4630 | 0.9941 95600 | 0.1075 87682 | 2.0436 78097 | 2.2752 18707 |
| .4631  | .9942 06354  | .1074 88262  | .0439 05629  | .2754 23086  |
| .4632  | .9942 17098  | .1073 88840  | .0441 33161  | .2756 27488  |
| .4633  | .9942 27831  | .1072 89418  | .0443 60754  | .2758 31912  |
| .4634  | .9942 38555  | .1071 89995  | .0445 88348  | .2760 36360  |
| 1.4635 | 0.9942 49269 | 0.1070 90570 | 2.0448 15961 | 2.2762 40830 |
| .4636  | .9942 59973  | .1069 91145  | .0450 43596  | .2764 45323  |
| .4637  | .9942 70668  | .1068 91718  | .0452 71251  | .2766 49839  |
| .4638  | .9942 81352  | .1067 92291  | .0454 98926  | .2768 54377  |
| .4639  | .9942 92026  | .1066 92862  | .0457 26621  | .2770 58939  |
| 1.4640 | 0.9943 02690 | 0.1065 93432 | 2.0459 54338 | 2.2772 63523 |
| .4641  | .9943 13345  | .1064 94002  | .0461 82074  | .2774 68129  |
| .4642  | .9943 23989  | .1063 94570  | .0464 09831  | .2776 72759  |
| .4643  | .9943 34624  | .1062 95137  | .0466 37609  | .2778 77411  |
| .4644  | .9943 45248  | .1061 95703  | .0468 65407  | .2780 82087  |
| 1.4645 | 0.9943 55863 | 0.1060 96268 | 2.0470 93225 | 2.2782 86784 |
| .4646  | .9943 66467  | .1059 96832  | .0473 21064  | .2784 91505  |
| .4647  | .9943 77062  | .1058 97394  | .0475 48923  | .2786 96249  |
| .4648  | .9943 87647  | .1057 97956  | .0477 76803  | .2789 01015  |
| .4649  | .9943 98222  | .1056 98517  | .0480 04704  | .2791 05804  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.4650 | 0.9944 08787 | 0.1055 99077 | 2.0482 32624 | 2.2793 10616 |
| .4651  | .9944 19342  | .1054 99635  | .0484 60566  | .2795 15451  |
| .4652  | .9944 29887  | .1054 00193  | .0486 88528  | .2797 20308  |
| .4653  | .9944 40422  | .1053 00749  | .0489 16510  | .2799 25188  |
| .4654  | .9944 50947  | .1052 01305  | .0491 44513  | .2801 30091  |
| 1.4655 | 0.9944 61462 | 0.1051 01859 | 2.0493 72536 | 2.2803 35017 |
| .4656  | .9944 71967  | .1050 02412  | .0496 00580  | .2805 39966  |
| .4657  | .9944 82462  | .1049 02965  | .0498 28644  | .2807 44937  |
| .4658  | .9944 92948  | .1048 03516  | .0500 56729  | .2809 49932  |
| .4659  | .9945 03423  | .1047 04066  | .0502 84834  | .2811 54949  |
| 1.4660 | 0.9945 13889 | 0.1046 04615 | 2.0505 12960 | 2.2813 59989 |
| .4661  | .9945 24344  | .1045 05163  | .0507 41106  | .2815 65051  |
| .4662  | .9945 34790  | .1044 05710  | .0509 69273  | .2817 70137  |
| .4663  | .9945 45225  | .1043 06256  | .0511 97460  | .2819 75245  |
| .4664  | .9945 55651  | .1042 06801  | .0514 25668  | .2821 80376  |
| 1.4665 | 0.9945 66067 | 0.1041 07345 | 2.0516 53896 | 2.2823 85530 |
| .4666  | .9945 76472  | .1040 07888  | .0518 82145  | .2825 90707  |
| .4667  | .9945 86868  | .1039 08430  | .0521 10414  | .2827 95907  |
| .4668  | .9945 97254  | .1038 08971  | .0523 38704  | .2830 01129  |
| .4669  | .9946 07630  | .1037 09510  | .0525 67014  | .2832 06374  |
| 1.4670 | 0.9946 17996 | 0.1036 10049 | 2.0527 95345 | 2.2834 11642 |
| .4671  | .9946 28352  | .1035 10587  | .0530 23697  | .2836 16933  |
| .4672  | .9946 38698  | .1034 11123  | .0532 52069  | .2838 22247  |
| .4673  | .9946 49034  | .1033 11659  | .0534 80461  | .2840 27584  |
| .4674  | .9946 59360  | .1032 12194  | .0537 08874  | .2842 32943  |
| 1.4675 | 0.9946 69677 | 0.1031 12727 | 2.0539 37308 | 2.2844 38326 |
| .4676  | .9946 79983  | .1030 13260  | .0541 65762  | .2846 43731  |
| .4677  | .9946 90279  | .1029 13791  | .0543 94236  | .2848 49159  |
| .4678  | .9947 00566  | .1028 14322  | .0546 22732  | .2850 54610  |
| .4679  | .9947 10842  | .1027 14851  | .0548 51247  | .2852 60083  |
| 1.4680 | 0.9947 21109 | 0.1026 15380 | 2.0550 79784 | 2.2854 65580 |
| .4681  | .9947 31365  | .1025 15907  | .0553 08340  | .2856 71099  |
| .4682  | .9947 41612  | .1024 16433  | .0555 36918  | .2858 76642  |
| .4683  | .9947 51848  | .1023 16959  | .0557 65516  | .2860 82207  |
| .4684  | .9947 62075  | .1022 17483  | .0559 94134  | .2862 87795  |
| 1.4685 | 0.9947 72292 | 0.1021 18006 | 2.0562 22773 | 2.2864 93406 |
| .4686  | .9947 82499  | .1020 18528  | .0564 51433  | .2866 99039  |
| .4687  | .9947 92696  | .1019 19050  | .0566 80113  | .2869 04696  |
| .4688  | .9948 02883  | .1018 19570  | .0569 08814  | .2871 10375  |
| .4689  | .9948 13060  | .1017 20089  | .0571 37535  | .2873 16078  |
| 1.4690 | 0.9948 23227 | 0.1016 20607 | 2.0573 66277 | 2.2875 21803 |
| .4691  | .9948 33384  | .1015 21124  | .0575 95040  | .2877 27551  |
| .4692  | .9948 43531  | .1014 21641  | .0578 23823  | .2879 33322  |
| .4693  | .9948 53668  | .1013 22156  | .0580 52626  | .2881 39116  |
| .4694  | .9948 63795  | .1012 22670  | .0582 81450  | .2883 44932  |
| 1.4695 | 0.9948 73913 | 0.1011 23183 | 2.0585 10295 | 2.2885 50772 |
| .4696  | .9948 84020  | .1010 23695  | .0587 39161  | .2887 56634  |
| .4697  | .9948 94117  | .1009 24206  | .0589 68047  | .2889 62520  |
| .4698  | .9949 04205  | .1008 24716  | .0591 96953  | .2891 68428  |
| .4699  | .9949 14282  | .1007 25225  | .0594 25880  | .2893 74359  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.4700 | 0.9949 24350 | 0.1006 25733 | 2.0833 54826 | 2.2333 30313 |
| .4701  | .9949 34407  | .1006 26240  | .0893 55736  | .2337 32290  |
| .4702  | .9949 44455  | .1004 26747  | .0901 12735  | .2339 32230  |
| .4703  | .9949 54493  | .1003 27252  | .0903 41735  | .2341 33313  |
| .4704  | .9949 64520  | .1002 27756  | .0905 70325  | .2344 34353  |
| 1.4705 | 0.9949 74538 | 0.1001 28253 | 2.0807 33378 | 2.2306 10427 |
| .4706  | .9949 84546  | .1000 28761  | .0910 23947  | .2308 13513  |
| .4707  | .9949 94544  | .0999 29262  | .0912 53039  | .2310 22333  |
| .4708  | .9950 04532  | .0998 29762  | .0914 81151  | .2312 23770  |
| .4709  | .9950 14510  | .0997 30261  | .0917 13265  | .2314 24330  |
| 1.4710 | 0.9950 24478 | 0.0996 30759 | 2.0819 45433 | 2.2316 41113 |
| .4711  | .9950 34436  | .0995 31256  | .0921 74613  | .2318 47319  |
| .4712  | .9950 44384  | .0994 31752  | .0924 03203  | .2320 53543  |
| .4713  | .9950 54322  | .0993 32247  | .0926 33024  | .2322 59800  |
| .4714  | .9950 64251  | .0992 32741  | .0928 62260  | .2324 66075  |
| 1.4715 | 0.9950 74169 | 0.0991 33234 | 2.0830 31517 | 2.2326 72372 |
| .4716  | .9950 84077  | .0990 33726  | .0933 20794  | .2328 78693  |
| .4717  | .9950 93976  | .0989 34217  | .0935 50093  | .2330 85036  |
| .4718  | .9951 03864  | .0988 34708  | .0937 79411  | .2332 91403  |
| .4719  | .9951 13743  | .0987 35197  | .0940 08751  | .2334 97792  |
| 1.4720 | 0.9951 23611 | 0.0986 35685 | 2.0842 33111 | 2.2337 04205 |
| .4721  | .9951 33470  | .0985 36172  | .0944 67492  | .2339 10640  |
| .4722  | .9951 43318  | .0984 36658  | .0946 96893  | .2341 17093  |
| .4723  | .9951 53157  | .0983 37143  | .0949 26315  | .2343 23579  |
| .4724  | .9951 62986  | .0982 37627  | .0951 55753  | .2345 30093  |
| 1.4725 | 0.9951 72805 | 0.0981 38111 | 2.0853 35221 | 2.2347 36510 |
| .4726  | .9951 82614  | .0980 38593  | .0953 14703  | .2349 42930  |
| .4727  | .9951 92412  | .0979 39074  | .0955 44210  | .2351 49373  |
| .4728  | .9952 02201  | .0978 39554  | .0958 73735  | .2353 55829  |
| .4729  | .9952 11980  | .0977 40034  | .0960 03261  | .2355 62343  |
| 1.4730 | 0.9952 21749 | 0.0976 40512 | 2.0865 32343 | 2.2357 68800 |
| .4731  | .9952 31508  | .0975 40989  | .0967 32435  | .2359 75255  |
| .4732  | .9952 41258  | .0974 41466  | .0969 62043  | .2361 81742  |
| .4733  | .9952 50997  | .0973 41941  | .0972 91672  | .2363 88253  |
| .4734  | .9952 60726  | .0972 42415  | .0974 21321  | .2365 94767  |
| 1.4735 | 0.9952 70445 | 0.0971 42889 | 2.0876 30991 | 2.2368 01143 |
| .4736  | .9952 80155  | .0970 43361  | .0979 10681  | .2370 07593  |
| .4737  | .9952 89854  | .0969 43833  | .0981 40393  | .2372 14078  |
| .4738  | .9952 99543  | .0968 44303  | .0983 70125  | .2374 20561  |
| .4739  | .9953 09223  | .0967 44773  | .0985 99877  | .2376 27040  |
| 1.4740 | 0.9953 18892 | 0.0966 45242 | 2.0883 29651 | 2.2378 33571 |
| .4741  | .9953 28552  | .0965 45709  | .0989 59445  | .2380 40166  |
| .4742  | .9953 38201  | .0964 46176  | .0992 89260  | .2382 46783  |
| .4743  | .9953 47841  | .0963 46642  | .0995 19095  | .2384 53425  |
| .4744  | .9953 57471  | .0962 47106  | .0997 48951  | .2386 60087  |
| 1.4745 | 0.9953 67090 | 0.0961 47570 | 2.0899 73325 | 2.2388 66773 |
| .4746  | .9953 76700  | .0960 48033  | .0999 38725  | .2390 73483  |
| .4747  | .9953 86300  | .0959 48495  | .0994 68344  | .2392 80218  |
| .4748  | .9953 95890  | .0958 48956  | .0998 98583  | .2394 86970  |
| .4749  | .9954 05470  | .0957 49416  | .0999 28843  | .2396 93743  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.4750 | 0.9954 15040 | 0.0956 49875 | 2.0711 28523 | 2.2999 07250 |
| .4751  | .9954 24600  | .0955 50333  | .0713 58524  | .3001 14374  |
| .4752  | .9954 34150  | .0954 50790  | .0715 88546  | .3003 21522  |
| .4753  | .9954 43690  | .0953 51246  | .0718 18588  | .3005 28692  |
| .4754  | .9954 53220  | .0952 51701  | .0720 48652  | .3007 35885  |
| 1.4755 | 0.9954 62740 | 0.0951 52155 | 2.0722 78736 | 2.3009 43102 |
| .4756  | .9954 72251  | .0950 52608  | .0725 08840  | .3011 50341  |
| .4757  | .9954 81751  | .0949 53061  | .0727 38966  | .3013 57604  |
| .4758  | .9954 91241  | .0948 53512  | .0729 69112  | .3015 64889  |
| .4759  | .9955 00722  | .0947 53962  | .0731 99279  | .3017 72197  |
| 1.4760 | 0.9955 10192 | 0.0946 54412 | 2.0734 29466 | 2.3019 79529 |
| .4761  | .9955 19652  | .0945 54860  | .0736 59674  | .3021 86883  |
| .4762  | .9955 29103  | .0944 55308  | .0738 89904  | .3023 94261  |
| .4763  | .9955 38543  | .0943 55755  | .0741 20153  | .3026 01661  |
| .4764  | .9955 47974  | .0942 56200  | .0743 50424  | .3028 09085  |
| 1.4765 | 0.9955 57395 | 0.0941 56645 | 2.0745 80715 | 2.3030 16531 |
| .4766  | .9955 66805  | .0940 57089  | .0748 11027  | .3032 24001  |
| .4767  | .9955 76206  | .0939 57532  | .0750 41360  | .3034 31494  |
| .4768  | .9955 85597  | .0938 57973  | .0752 71713  | .3036 39009  |
| .4769  | .9955 94978  | .0937 58414  | .0755 02088  | .3038 46548  |
| 1.4770 | 0.9956 04349 | 0.0936 58854 | 2.0757 32483 | 2.3040 54110 |
| .4771  | .9956 13710  | .0935 59294  | .0759 62899  | .3042 61694  |
| .4772  | .9956 23060  | .0934 59732  | .0761 93335  | .3044 69302  |
| .4773  | .9956 32401  | .0933 60169  | .0764 23792  | .3046 76933  |
| .4774  | .9956 41733  | .0932 60605  | .0766 54270  | .3048 84587  |
| 1.4775 | 0.9956 51054 | 0.0931 61041 | 2.0768 84769 | 2.3050 92264 |
| .4776  | .9956 60365  | .0930 61475  | .0771 15289  | .3052 99964  |
| .4777  | .9956 69666  | .0929 61909  | .0773 45829  | .3055 07687  |
| .4778  | .9956 78957  | .0928 62341  | .0775 76390  | .3057 15433  |
| .4779  | .9956 88238  | .0927 62773  | .0778 06972  | .3059 23202  |
| 1.4780 | 0.9956 97510 | 0.0926 63203 | 2.0780 37575 | 2.3061 30994 |
| .4781  | .9957 06771  | .0925 63633  | .0782 68199  | .3063 38810  |
| .4782  | .9957 16022  | .0924 64062  | .0784 98843  | .3065 46648  |
| .4783  | .9957 25264  | .0923 64490  | .0787 29508  | .3067 54510  |
| .4784  | .9957 34495  | .0922 64917  | .0789 60194  | .3069 62394  |
| 1.4785 | 0.9957 43717 | 0.0921 65343 | 2.0791 90900 | 2.3071 70302 |
| .4786  | .9957 52928  | .0920 65768  | .0794 21628  | .3073 78232  |
| .4787  | .9957 62130  | .0919 66193  | .0796 52376  | .3075 86186  |
| .4788  | .9957 71322  | .0918 66616  | .0798 83145  | .3077 94163  |
| .4789  | .9957 80503  | .0917 67038  | .0801 13935  | .3080 02163  |
| 1.4790 | 0.9957 89675 | 0.0916 67460 | 2.0803 44746 | 2.3082 10185 |
| .4791  | .9957 98837  | .0915 67880  | .0805 75577  | .3084 18231  |
| .4792  | .9958 07989  | .0914 68300  | .0808 06429  | .3086 26301  |
| .4793  | .9958 17130  | .0913 68719  | .0810 37302  | .3088 34393  |
| .4794  | .9958 26262  | .0912 69137  | .0812 68196  | .3090 42508  |
| 1.4795 | 0.9958 35384 | 0.0911 69554 | 2.0814 99111 | 2.3092 50646 |
| .4796  | .9958 44496  | .0910 69970  | .0817 30046  | .3094 58808  |
| .4797  | .9958 53598  | .0909 70385  | .0819 61002  | .3096 66992  |
| .4798  | .9958 62690  | .0908 70799  | .0821 91980  | .3098 75200  |
| .4799  | .9958 71772  | .0907 71212  | .0824 22978  | .3100 83431  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.4800 | 0.9958 80845 | 0.0906 71624 | 2.0326 53996 | 2.3102 91685 |
| .4801  | .9958 89907  | .0905 72036  | .0828 35036  | .3104 99962  |
| .4802  | .9958 99959  | .0904 72446  | .0831 16096  | .3107 08232  |
| .4803  | .9959 08001  | .0903 72856  | .0833 47178  | .3109 16685  |
| .4804  | .9959 17034  | .0902 73265  | .0835 78230  | .3111 24931  |
| 1.4805 | 0.9959 26056 | 0.0901 73673 | 2.0538 09402 | 2.3113 33300 |
| .4806  | .9959 35068  | .0900 74080  | .0840 40546  | .3115 41693  |
| .4807  | .9959 44071  | .0899 74486  | .0842 71711  | .3117 50109  |
| .4808  | .9959 53063  | .0898 74891  | .0845 02896  | .3119 58547  |
| .4809  | .9959 62046  | .0897 75295  | .0847 34103  | .3121 67009  |
| 1.4810 | 0.9959 71018 | 0.0896 75698 | 2.0849 65330 | 2.3123 75494 |
| .4811  | .9959 79981  | .0895 76101  | .0851 96578  | .3125 84002  |
| .4812  | .9959 88933  | .0894 76502  | .0854 27346  | .3127 92533  |
| .4813  | .9959 97876  | .0893 76903  | .0856 59136  | .3130 01088  |
| .4814  | .9960 06809  | .0892 77303  | .0858 90447  | .3132 09665  |
| 1.4815 | 0.9960 15732 | 0.0891 77702 | 2.0861 21778 | 2.3134 19266 |
| .4816  | .9960 24644  | .0890 78100  | .0863 53130  | .3136 26890  |
| .4817  | .9960 33547  | .0889 78497  | .0865 84503  | .3138 35537  |
| .4818  | .9960 42440  | .0888 78893  | .0865 15897  | .3140 44207  |
| .4819  | .9960 51323  | .0887 79288  | .0870 47312  | .3142 52900  |
| 1.4820 | 0.9960 60196 | 0.0886 79683 | 2.0872 78748 | 2.3144 61616 |
| .4821  | .9960 69059  | .0885 80076  | .0875 10205  | .3146 70355  |
| .4822  | .9960 77912  | .0884 80469  | .0877 41632  | .3148 79113  |
| .4823  | .9960 86755  | .0883 80861  | .0879 73180  | .3150 87904  |
| .4824  | .9960 95588  | .0882 81252  | .0882 04700  | .3152 96713  |
| 1.4825 | 0.9961 04411 | 0.0881 81642 | 2.0884 38240 | 2.3155 05545 |
| .4826  | .9961 13224  | .0880 82031  | .0886 67301  | .3157 14400  |
| .4827  | .9961 22028  | .0879 82418  | .0889 99323  | .3159 23273  |
| .4828  | .9961 30821  | .0878 82806  | .0891 30935  | .3161 32180  |
| .4829  | .9961 39604  | .0877 83193  | .0893 62609  | .3163 41104  |
| 1.4830 | 0.9961 48378 | 0.0876 83578 | 2.0895 94254 | 2.3165 50052 |
| .4831  | .9961 57141  | .0875 83963  | .0896 25819  | .3167 58023  |
| .4832  | .9961 65894  | .0874 84347  | .0900 57605  | .3169 66013  |
| .4833  | .9961 74638  | .0873 84730  | .0902 89313  | .3171 74035  |
| .4834  | .9961 83371  | .0872 85112  | .0905 21041  | .3173 82075  |
| 1.4835 | 0.9961 92095 | 0.0871 85493 | 2.0907 52790 | 2.3175 95139 |
| .4836  | .9962 00808  | .0870 85874  | .0909 84560  | .3177 04226  |
| .4837  | .9962 09512  | .0869 86253  | .0912 16351  | .3180 13336  |
| .4838  | .9962 18206  | .0868 86632  | .0914 48163  | .3182 22469  |
| .4839  | .9962 26889  | .0867 87009  | .0916 79995  | .3184 31626  |
| 1.4840 | 0.9962 35563 | 0.0866 87386 | 2.0919 11249 | 2.3186 40805 |
| .4841  | .9962 44227  | .0865 87762  | .0921 43723  | .3188 50008  |
| .4842  | .9962 52881  | .0864 88137  | .0923 75619  | .3190 59234  |
| .4843  | .9962 61524  | .0863 88512  | .0926 07535  | .3192 68493  |
| .4844  | .9962 70158  | .0862 88885  | .0928 39473  | .3194 77755  |
| 1.4845 | 0.9962 78782 | 0.0861 89258 | 2.0930 71431 | 2.3196 87051 |
| .4846  | .9962 87396  | .0860 89629  | .0933 03410  | .3198 96370  |
| .4847  | .9962 96000  | .0859 90000  | .0935 35410  | .3201 05712  |
| .4848  | .9963 04594  | .0858 90370  | .0937 67431  | .3203 15077  |
| .4849  | .9963 13178  | .0857 90739  | .0939 99473  | .3205 24465  |



| x  | sin x  | cos x  | sinh x   | cosh x   |
|--|--|--|--|--|
| 1.4850<br>.4851<br>.4852<br>.4853<br>.4854 | 0.9963 21752<br>.9963 30316<br>.9963 38271<br>.9963 47415<br>.9963 55949 | 0.0856 91108<br>.0855 91475<br>.0854 91842<br>.0853 92207<br>.0852 92572 | 2.0942 31536<br>.0944 63820<br>.0946 95725<br>.0949 27850<br>.0951 59997 | 2.3207 35877<br>.3209 43311<br>.3211 52769<br>.3213 62251<br>.3215 71755 |
| 1.4855<br>.4856<br>.4857<br>.4858<br>.4859 | 0.9963 64473<br>.9963 72938<br>.9963 81492<br>.9963 89986<br>.9963 98471 | 0.0851 92936<br>.0850 93299<br>.0849 93661<br>.0848 94023<br>.0847 94383 | 2.0953 92165<br>.0956 24353<br>.0958 56563<br>.0960 88794<br>.0963 21045 | 2.3217 81283<br>.3219 90833<br>.3222 00408<br>.3224 10005<br>.3226 19625 |
| 1.4860<br>.4861<br>.4862<br>.4863<br>.4864 | 0.9964 06945<br>.9964 15410<br>.9964 23864<br>.9964 32309<br>.9964 40743 | 0.0846 94743<br>.0845 95102<br>.0844 95460<br>.0843 95817<br>.0842 96174 | 2.0965 53317<br>.0967 85611<br>.0970 17925<br>.0972 50261<br>.0974 82617 | 2.3228 29269<br>.3230 38936<br>.3232 48626<br>.3234 58340<br>.3236 68076 |
| 1.4865<br>.4866<br>.4867<br>.4868<br>.4869 | 0.9964 49168<br>.9964 57583<br>.9964 65987<br>.9964 74382<br>.9964 82767 | 0.0841 96529<br>.0840 96884<br>.0839 97238<br>.0838 97591<br>.0837 97943 | 2.0977 14994<br>.0979 47392<br>.0981 79812<br>.0984 12252<br>.0986 44713 | 2.3238 77836<br>.3240 87619<br>.3242 97426<br>.3245 07255<br>.3247 17108 |
| 1.4870<br>.4871<br>.4872<br>.4873<br>.4874 | 0.9964 91142<br>.9964 99507<br>.9965 07861<br>.9965 16206<br>.9965 24541 | 0.0836 98294<br>.0835 98645<br>.0834 98994<br>.0833 99343<br>.0832 99691 | 2.0988 77195<br>.0991 09699<br>.0993 42223<br>.0995 74768<br>.0998 07334 | 2.3249 26984<br>.3251 36883<br>.3253 46806<br>.3255 56752<br>.3257 66721 |
| 1.4875<br>.4876<br>.4877<br>.4878<br>.4879 | 0.9965 32866<br>.9965 41181<br>.9965 49486<br>.9965 57781<br>.9965 66067 | 0.0832 00038<br>.0831 00384<br>.0830 00730<br>.0829 01074<br>.0828 01418 | 2.1000 39921<br>.1002 72529<br>.1005 05159<br>.1007 37809<br>.1009 70480 | 2.3259 76713<br>.3261 86729<br>.3263 96768<br>.3266 06830<br>.3268 16915 |
| 1.4880<br>.4881<br>.4882<br>.4883<br>.4884 | 0.9965 74342<br>.9965 82607<br>.9965 90862<br>.9965 99107<br>.9966 07343 | 0.0827 01761<br>.0826 02103<br>.0825 02445<br>.0824 02785<br>.0823 03125 | 2.1012 03172<br>.1014 35835<br>.1016 68620<br>.1019 01375<br>.1021 34151 | 2.3270 27024<br>.3272 37156<br>.3274 47311<br>.3276 57490<br>.3278 67692 |
| 1.4885<br>.4886<br>.4887<br>.4888<br>.4889 | 0.9966 15568<br>.9966 23783<br>.9966 31989<br>.9966 40184<br>.9966 48370 | 0.0822 03464<br>.0821 03802<br>.0820 04139<br>.0819 04475<br>.0818 04811 | 2.1023 66948<br>.1025 99767<br>.1028 32606<br>.1030 65466<br>.1032 98348 | 2.3280 77917<br>.3282 88165<br>.3284 98437<br>.3287 08731<br>.3289 19050 |
| 1.4890<br>.4891<br>.4892<br>.4893<br>.4894 | 0.9966 56545<br>.9966 64711<br>.9966 72866<br>.9966 81012<br>.9966 89148 | 0.0817 05146<br>.0816 05480<br>.0815 05813<br>.0814 06145<br>.0813 06477 | 2.1035 31250<br>.1037 64174<br>.1039 97118<br>.1042 30084<br>.1044 63070 | 2.3291 29391<br>.3293 39756<br>.3295 50144<br>.3297 60555<br>.3299 70990 |
| 1.4895<br>.4896<br>.4897<br>.4898<br>.4899 | 0.9966 97273<br>.9967 05389<br>.9967 13485<br>.9967 21590<br>.9967 29676 | 0.0812 06807<br>.0811 07137<br>.0810 07466<br>.0809 07794<br>.0808 08122 | 2.1046 96078<br>.1049 29107<br>.1051 62156<br>.1053 95227<br>.1056 28319 | 2.3301 81448<br>.3303 91929<br>.3306 02434<br>.3308 12962<br>.3310 23513 |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.4900 | 0.9967 37752 | 0.0807 08448 | 2.1058 61432 | 2.3312 34087 |
| .4901  | .9967 45818  | .0806 08774  | .1060 94563  | .3314 44635  |
| .4902  | .9967 53874  | .0805 09099  | .1063 27721  | .3315 55303  |
| .4903  | .9967 61920  | .0804 09424  | .1065 60897  | .3313 65951  |
| .4904  | .9967 69956  | .0803 09747  | .1067 94094  | .3320 76313  |
| 1.4905 | 0.9967 77982 | 0.0802 10070 | 2.1070 27312 | 2.3322 87309 |
| .4906  | .9967 85998  | .0801 10391  | .1072 60551  | .3324 98024  |
| .4907  | .9967 94004  | .0800 10712  | .1074 93812  | .3327 08762  |
| .4908  | .9968 02000  | .0799 11033  | .1077 27093  | .3329 19523  |
| .4909  | .9968 09986  | .0798 11352  | .1079 60596  | .3331 30307  |
| 1.4910 | 0.9968 17962 | 0.0797 11671 | 2.1081 93719 | 2.3333 41115 |
| .4911  | .9968 25928  | .0796 11988  | .1084 27064  | .3335 51948  |
| .4912  | .9968 33885  | .0795 12305  | .1086 60430  | .3337 62800  |
| .4913  | .9968 41831  | .0794 12622  | .1088 93816  | .3339 73678  |
| .4914  | .9968 49767  | .0793 12937  | .1091 27224  | .3341 84579  |
| 1.4915 | 0.9968 57693 | 0.0792 13252 | 2.1093 60653 | 2.3343 95503 |
| .4916  | .9968 65610  | .0791 13565  | .1095 94103  | .3346 06451  |
| .4917  | .9968 73516  | .0790 13878  | .1098 27575  | .3348 17422  |
| .4918  | .9968 81412  | .0789 14191  | .1100 61067  | .3350 28416  |
| .4919  | .9968 89299  | .0788 14502  | .1102 94580  | .3352 39434  |
| 1.4920 | 0.9968 97175 | 0.0787 14813 | 2.1105 28115 | 2.3354 50475 |
| .4921  | .9969 05042  | .0786 15123  | .1107 61670  | .3356 61540  |
| .4922  | .9969 12898  | .0785 15432  | .1109 95247  | .3358 72628  |
| .4923  | .9969 20745  | .0784 15740  | .1112 23845  | .3360 83739  |
| .4924  | .9969 28582  | .0783 16048  | .1114 62464  | .3362 94874  |
| 1.4925 | 0.9969 36408 | 0.0782 16354 | 2.1116 96104 | 2.3365 06031 |
| .4926  | .9969 44225  | .0781 16660  | .1119 29765  | .3367 17213  |
| .4927  | .9969 52031  | .0780 16966  | .1121 63447  | .3369 28417  |
| .4928  | .9969 59828  | .0779 17270  | .1123 97151  | .3371 39645  |
| .4929  | .9969 67615  | .0778 17574  | .1126 30875  | .3373 50897  |
| 1.4930 | 0.9969 75392 | 0.0777 17876 | 2.1128 64621 | 2.3375 62172 |
| .4931  | .9969 83159  | .0776 18179  | .1130 98388  | .3377 73470  |
| .4932  | .9969 90915  | .0775 18480  | .1133 32176  | .3379 84791  |
| .4933  | .9969 98662  | .0774 18780  | .1135 65985  | .3381 96136  |
| .4934  | .9970 06399  | .0773 19080  | .1137 99815  | .3384 07504  |
| 1.4935 | 0.9970 14126 | 0.0772 19379 | 2.1140 33666 | 2.3386 18896 |
| .4936  | .9970 21843  | .0771 19677  | .1142 67539  | .3388 30311  |
| .4937  | .9970 29550  | .0770 19975  | .1145 01432  | .3390 41750  |
| .4938  | .9970 37247  | .0769 20271  | .1147 35347  | .3392 53212  |
| .4939  | .9970 44934  | .0768 20567  | .1149 69283  | .3394 64697  |
| 1.4940 | 0.9970 52611 | 0.0767 20862 | 2.1152 03240 | 2.3396 76205 |
| .4941  | .9970 60278  | .0766 21157  | .1154 37218  | .3398 87737  |
| .4942  | .9970 67935  | .0765 21450  | .1156 71217  | .3400 99293  |
| .4943  | .9970 75582  | .0764 21743  | .1159 05238  | .3403 10872  |
| .4944  | .9970 83220  | .0763 22035  | .1161 39280  | .3405 22474  |
| 1.4945 | 0.9970 90847 | 0.0762 22327 | 2.1163 73342 | 2.3407 34099 |
| .4946  | .9970 98464  | .0761 22617  | .1166 07426  | .3409 45749  |
| .4947  | .9971 06071  | .0760 22907  | .1168 41532  | .3411 57421  |
| .4948  | .9971 13669  | .0759 23196  | .1170 75658  | .3413 69117  |
| .4949  | .9971 21256  | .0758 23484  | .1173 09805  | .3415 80836  |

| x  | sin x  | cos x  | sinh x   | cosh x   |
|--|--|--|--|--|
| 1.4950<br>.4951<br>.4952<br>.4953<br>.4954 | 0.9971 28833<br>.9971 36401<br>.9971 43958<br>.9971 51506<br>.9971 59043 | 0.0757 23772<br>.0756 24058<br>.0755 24344<br>.0754 24630<br>.0753 24914 | 2.1175 43974<br>.1177 78164<br>.1180 12375<br>.1182 46607<br>.1184 80861 | 2.3417 92579<br>.3420 04345<br>.3422 16134<br>.3424 27947<br>.3426 39784 |
| 1.4955<br>.4956<br>.4957<br>.4958<br>.4959 | 0.9971 66571<br>.9971 74088<br>.9971 81596<br>.9971 89093<br>.9971 96581 | 0.0752 25198<br>.0751 25481<br>.0750 25763<br>.0749 26044<br>.0748 26325 | 2.1187 15135<br>.1189 49431<br>.1191 83748<br>.1194 18086<br>.1196 52445 | 2.3428 51644<br>.3430 63527<br>.3432 75433<br>.3434 87364<br>.3436 99317 |
| 1.4960<br>.4961<br>.4962<br>.4963<br>.4964 | 0.9972 04059<br>.9972 11526<br>.9972 18984<br>.9972 26452<br>.9972 33869 | 0.0747 26605<br>.0746 26884<br>.0745 27163<br>.0744 27441<br>.0743 27717 | 2.1198 86826<br>.1201 21228<br>.1203 55650<br>.1205 90095<br>.1208 24560 | 2.3439 11294<br>.3441 23294<br>.3443 35318<br>.3445 47366<br>.3447 59436 |
| 1.4965<br>.4966<br>.4967<br>.4968<br>.4969 | 0.9972 41297<br>.9972 48715<br>.9972 56123<br>.9972 63521<br>.9972 70909 | 0.0742 27994<br>.0741 28269<br>.0740 28544<br>.0739 28818<br>.0738 29091 | 2.1210 59046<br>.1212 93554<br>.1215 28083<br>.1217 62633<br>.1219 97205 | 2.3449 71530<br>.3451 83648<br>.3453 95789<br>.3456 07954<br>.3458 20142 |
| 1.4970<br>.4971<br>.4972<br>.4973<br>.4974 | 0.9972 78287<br>.9972 85655<br>.9972 93013<br>.9973 00361<br>.9973 07699 | 0.0737 29364<br>.0736 29636<br>.0735 29907<br>.0734 30177<br>.0733 30447 | 2.1222 31797<br>.1224 66411<br>.1227 01046<br>.1229 35703<br>.1231 70380 | 2.3460 32353<br>.3462 44588<br>.3464 56846<br>.3466 69128<br>.3468 81434 |
| 1.4975<br>.4976<br>.4977<br>.4978<br>.4979 | 0.9973 15027<br>.9973 22345<br>.9973 29653<br>.9973 36951<br>.9973 44239 | 0.0732 30715<br>.0731 30984<br>.0730 31251<br>.0729 31518<br>.0728 31784 | 2.1234 05079<br>.1236 39799<br>.1238 74540<br>.1241 09303<br>.1243 44086 | 2.3470 93762<br>.3473 06115<br>.3475 18490<br>.3477 30889<br>.3479 43312 |
| 1.4980<br>.4981<br>.4982<br>.4983<br>.4984 | 0.9973 51517<br>.9973 58786<br>.9973 66044<br>.9973 73292<br>.9973 80530 | 0.0727 32049<br>.0726 32313<br>.0725 32577<br>.0724 32840<br>.0723 33102 | 2.1245 78891<br>.1248 13717<br>.1250 48565<br>.1252 83434<br>.1255 18324 | 2.3481 55758<br>.3483 68228<br>.3485 80721<br>.3487 93238<br>.3490 05778 |
| 1.4985<br>.4986<br>.4987<br>.4988<br>.4989 | 0.9973 87759<br>.9973 94977<br>.9974 02185<br>.9974 09384<br>.9974 16572 | 0.0722 333.4<br>.0721 33625<br>.0720 33885<br>.0719 34144<br>.0718 34403 | 2.1257 51235<br>.1259 86167<br>.1262 25111<br>.1264 58096<br>.1266 93082 | 2.3492 18341<br>.3494 30928<br>.3496 43539<br>.3498 56173<br>.3500 68831 |
| 1.4990<br>.4991<br>.4992<br>.4993<br>.4994 | 0.9974 23751<br>.9974 30919<br>.9974 38078<br>.9974 45226<br>.9974 52365 | 0.0717 34661<br>.0716 34918<br>.0715 35175<br>.0714 35431<br>.0713 35686 | 2.1269 26110<br>.1271 63149<br>.1273 98209<br>.1276 33290<br>.1278 68393 | 2.3502 81512<br>.3504 94216<br>.3507 06944<br>.3509 19696<br>.3511 32471 |
| 1.4995<br>.4996<br>.4997<br>.4998<br>.4999 | 0.9974 59493<br>.9974 66612<br>.9974 73721<br>.9974 80819<br>.9974 87908 | 0.0712 35940<br>.0711 36194<br>.0710 36447<br>.0709 36699<br>.0708 36951 | 2.1281 03516<br>.1283 38662<br>.1285 73828<br>.1288 09016<br>.1290 44225 | 2.3513 45270<br>.3515 58092<br>.3517 70937<br>.3519 83806<br>.3521 96699 |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.5000 | 0.9974 94987 | 0.0707 37202 | 2.1292 79455 | 2.3524 09615 |
| .5001  | .9975 02055  | .0706 37452  | .1295 14707  | .3526 22555  |
| .5002  | .9975 09114  | .0705 37701  | .1297 49980  | .3528 35518  |
| .5003  | .9975 16163  | .0704 37950  | .1299 85274  | .3530 48505  |
| .5004  | .9975 23202  | .0703 38198  | .1302 20589  | .3532 61516  |
| 1.5005 | 0.9975 30231 | 0.0702 38445 | 2.1304 55926 | 2.3534 74549 |
| .5006  | .9975 37249  | .0701 38692  | .1306 91284  | .3536 87606  |
| .5007  | .9975 44258  | .0700 38938  | .1309 26664  | .3539 00687  |
| .5008  | .9975 51257  | .0699 39183  | .1311 62064  | .3541 13792  |
| .5009  | .9975 58246  | .0698 39428  | .1313 97426  | .3543 26920  |
| 1.5010 | 0.9975 65225 | 0.0697 39671 | 2.1316 32930 | 2.3545 40071 |
| .5011  | .9975 72194  | .0696 39915  | .1318 68394  | .3547 53246  |
| .5012  | .9975 79153  | .0695 40157  | .1321 03880  | .3549 66445  |
| .5013  | .9975 86102  | .0694 40399  | .1323 39388  | .3551 79667  |
| .5014  | .9975 93041  | .0693 40640  | .1325 74916  | .3553 92913  |
| 1.5015 | 0.9975 99970 | 0.0692 40880 | 2.1323 10466 | 2.3556 06182 |
| .5016  | .9976 06889  | .0691 41120  | .1330 46038  | .3558 19475  |
| .5017  | .9976 13798  | .0690 41359  | .1332 81630  | .3560 32791  |
| .5018  | .9976 20698  | .0689 41597  | .1335 17244  | .3562 46131  |
| .5019  | .9976 27597  | .0688 41835  | .1337 52879  | .3564 59405  |
| 1.5020 | 0.9976 34466 | 0.0687 42072 | 2.1339 88536 | 2.3566 72882 |
| .5021  | .9976 41335  | .0686 42308  | .1342 24214  | .3568 86292  |
| .5022  | .9976 48194  | .0685 42543  | .1344 59913  | .3570 99727  |
| .5023  | .9976 55044  | .0684 42778  | .1346 95634  | .3573 13174  |
| .5024  | .9976 61883  | .0683 43012  | .1349 31376  | .3575 26626  |
| 1.5025 | 0.9976 68712 | 0.0682 43246 | 2.1351 67139 | 2.3577 40171 |
| .5026  | .9976 75532  | .0681 43479  | .1354 02924  | .3579 53699  |
| .5027  | .9976 82341  | .0680 43711  | .1356 38730  | .3581 67251  |
| .5028  | .9976 89140  | .0679 43942  | .1358 74557  | .3583 80827  |
| .5029  | .9976 95930  | .0678 44173  | .1361 10406  | .3585 94426  |
| 1.5030 | 0.9977 02709 | 0.0677 44403 | 2.1363 46276 | 2.3588 08049 |
| .5031  | .9977 09479  | .0676 44632  | .1365 82168  | .3590 21695  |
| .5032  | .9977 16238  | .0675 44861  | .1368 18031  | .3592 35365  |
| .5033  | .9977 22988  | .0674 45089  | .1370 54015  | .3594 49059  |
| .5034  | .9977 29727  | .0673 45316  | .1372 89970  | .3596 62776  |
| 1.5035 | 0.9977 36457 | 0.0672 45543 | 2.1375 25947 | 2.3598 76517 |
| .5036  | .9977 43176  | .0671 45769  | .1377 61946  | .3600 90281  |
| .5037  | .9977 49886  | .0670 45994  | .1379 97965  | .3603 04069  |
| .5038  | .9977 56585  | .0669 46219  | .1382 34007  | .3605 17881  |
| .5039  | .9977 63275  | .0668 46443  | .1384 70069  | .3607 31716  |
| 1.5040 | 0.9977 69955 | 0.0667 46666 | 2.1387 06153 | 2.3609 45575 |
| .5041  | .9977 76624  | .0666 46889  | .1389 42258  | .3611 59457  |
| .5042  | .9977 83284  | .0665 47111  | .1391 78395  | .3613 73364  |
| .5043  | .9977 89934  | .0664 47332  | .1394 14533  | .3615 87293  |
| .5044  | .9977 96574  | .0663 47553  | .1396 50702  | .3617 01246  |
| 1.5045 | 0.9978 03203 | 0.0662 47773 | 2.1393 86893 | 2.3620 15223 |
| .5046  | .9978 09823  | .0661 47993  | .1401 23105  | .3622 29224  |
| .5047  | .9978 16433  | .0660 48211  | .1403 59339  | .3624 43248  |
| .5048  | .9978 23033  | .0659 48429  | .1405 95594  | .3626 57296  |
| .5049  | .9978 29623  | .0658 48647  | .1408 31870  | .3628 71367  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.5050 | 0.9978 36202 | 0.0657 48863 | 2.1410 68168 | 2.3630 85462 |
| .5051  | .9978 42772  | .0656 49079  | .1413 04487  | .3632 99581  |
| .5052  | .9978 49332  | .0655 49295  | .1415 40828  | .3635 13723  |
| .5053  | .9978 55982  | .0654 49509  | .1417 77190  | .3637 27889  |
| .5054  | .9978 62422  | .0653 49724  | .1420 13574  | .3639 42078  |
| 1.5055 | 0.9978 63952 | 0.0652 49937 | 2.1422 49979 | 2.3641 56292 |
| .5056  | .9978 75472  | .0651 50150  | .1424 86405  | .3643 70528  |
| .5057  | .9978 81982  | .0650 50362  | .1427 22853  | .3645 84789  |
| .5058  | .9978 88482  | .0649 50573  | .1429 59322  | .3647 99073  |
| .5059  | .9978 94972  | .0648 50784  | .1431 95813  | .3650 13381  |
| 1.5060 | 0.9979 01452 | 0.0647 50994 | 2.1434 32325 | 2.3652 27712 |
| .5061  | .9979 07923  | .0646 51204  | .1436 68853  | .3654 42067  |
| .5062  | .9979 14383  | .0645 51413  | .1439 05413  | .3656 56446  |
| .5063  | .9979 20833  | .0644 51621  | .1441 41989  | .3658 70848  |
| .5064  | .9979 27273  | .0643 51829  | .1443 78587  | .3660 85274  |
| 1.5065 | 0.9979 33703 | 0.0642 52036 | 2.1446 15206 | 2.3662 99724 |
| .5066  | .9979 40123  | .0641 52242  | .1448 51847  | .3665 14197  |
| .5067  | .9979 46534  | .0640 52448  | .1450 88509  | .3667 28694  |
| .5068  | .9979 52934  | .0639 52653  | .1453 25193  | .3669 43215  |
| .5069  | .9979 59324  | .0638 52857  | .1455 61898  | .3671 57759  |
| 1.5070 | 0.9979 65704 | 0.0637 53061 | 2.1457 98624 | 2.3673 72327 |
| .5071  | .9979 72075  | .0636 53264  | .1460 35372  | .3675 86919  |
| .5072  | .9979 78435  | .0635 53466  | .1462 72142  | .3678 01534  |
| .5073  | .9979 84785  | .0634 53668  | .1465 08933  | .3680 16174  |
| .5074  | .9979 91126  | .0633 53869  | .1467 45745  | .3682 30836  |
| 1.5075 | 0.9979 97456 | 0.0632 54070 | 2.1469 82579 | 2.3684 45523 |
| .5076  | .9980 03777  | .0631 54270  | .1472 19434  | .3686 60233  |
| .5077  | .9980 10087  | .0630 54469  | .1474 56311  | .3688 74967  |
| .5078  | .9980 16388  | .0629 54668  | .1476 93209  | .3690 89724  |
| .5079  | .9980 22678  | .0628 54866  | .1479 30129  | .3693 04505  |
| 1.5080 | 0.9980 28959 | 0.0627 55063 | 2.1481 67070 | 2.3695 19310 |
| .5081  | .9980 35229  | .0626 55260  | .1484 04033  | .3697 34139  |
| .5082  | .9980 41490  | .0625 55456  | .1486 41017  | .3699 48991  |
| .5083  | .9980 47740  | .0624 55652  | .1488 78023  | .3701 63867  |
| .5084  | .9980 53981  | .0623 55847  | .1491 15050  | .3703 78767  |
| 1.5085 | 0.9980 60211 | 0.0622 56041 | 2.1493 52098 | 2.3705 93690 |
| .5086  | .9980 66432  | .0621 56235  | .1495 89168  | .3708 08637  |
| .5087  | .9980 72643  | .0620 56428  | .1498 26260  | .3710 23608  |
| .5088  | .9980 78843  | .0619 56620  | .1500 63373  | .3712 38602  |
| .5089  | .9980 85034  | .0618 56812  | .1503 00508  | .3714 53620  |
| 1.5090 | 0.9980 91215 | 0.0617 57003 | 2.1505 37664 | 2.3716 68662 |
| .5091  | .9980 97385  | .0616 57194  | .1507 74841  | .3718 83728  |
| .5092  | .9981 03546  | .0615 57384  | .1510 12041  | .3720 98817  |
| .5093  | .9981 09697  | .0614 57573  | .1512 49261  | .3723 13930  |
| .5094  | .9981 15838  | .0613 57762  | .1514 86503  | .3725 29067  |
| 1.5095 | 0.9981 21968 | 0.0612 57950 | 2.1517 23767 | 2.3727 44228 |
| .5096  | .9981 28089  | .0611 58137  | .1519 61052  | .3729 59412  |
| .5097  | .9981 34200  | .0610 58324  | .1521 98359  | .3731 74620  |
| .5098  | .9981 40301  | .0609 58510  | .1524 35687  | .3733 89852  |
| .5099  | .9981 46392  | .0608 58696  | .1526 73037  | .3736 05107  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.5100 | 0.9981 52472 | 0.0607 58881 | 2.1529 10408 | 2.3738 20386 |
| .5101  | .9981 58543  | .0606 59066  | .1531 47801  | .3740 35689  |
| .5102  | .9981 64604  | .0605 59250  | .1533 85215  | .3742 51016  |
| .5103  | .9981 70655  | .0604 59433  | .1536 22651  | .3744 66366  |
| .5104  | .9981 76696  | .0603 59615  | .1538 60109  | .3746 81740  |
| 1.5105 | 0.9981 82727 | 0.0602 59797 | 2.1540 97588 | 2.3748 97138 |
| .5106  | .9981 88748  | .0601 59979  | .1543 35088  | .3751 12560  |
| .5107  | .9981 94759  | .0600 60160  | .1545 72610  | .3753 28005  |
| .5108  | .9982 00760  | .0599 60340  | .1548 10154  | .3755 43474  |
| .5109  | .9982 06751  | .0598 60520  | .1550 47719  | .3757 58967  |
| 1.5110 | 0.9982 12732 | 0.0597 60699 | 2.1552 85305 | 2.3759 74484 |
| .5111  | .9982 18703  | .0596 60877  | .1555 22914  | .3761 90024  |
| .5112  | .9982 24664  | .0595 61055  | .1557 60543  | .3764 05588  |
| .5113  | .9982 30616  | .0594 61232  | .1559 98195  | .3766 21176  |
| .5114  | .9982 36557  | .0593 61409  | .1562 35868  | .3768 36788  |
| 1.5115 | 0.9982 42488 | 0.0592 61585 | 2.1564 73562 | 2.3770 52424 |
| .5116  | .9982 48409  | .0591 61760  | .1567 11278  | .3772 68083  |
| .5117  | .9982 54320  | .0590 61935  | .1569 49016  | .3774 83766  |
| .5118  | .9982 60221  | .0589 62109  | .1571 86775  | .3776 99473  |
| .5119  | .9982 66113  | .0588 62283  | .1574 24556  | .3779 15203  |
| 1.5120 | 0.9982 71994 | 0.0587 62456 | 2.1576 62358 | 2.3781 30957 |
| .5121  | .9982 77865  | .0586 62629  | .1579 00182  | .3783 46736  |
| .5122  | .9982 83726  | .0585 62801  | .1581 38027  | .3785 62538  |
| .5123  | .9982 89578  | .0584 62972  | .1583 75894  | .3787 78363  |
| .5124  | .9982 95419  | .0583 63143  | .1586 13783  | .3789 94213  |
| 1.5125 | 0.9983 01250 | 0.0582 63313 | 2.1588 51693 | 2.3792 10086 |
| .5126  | .9983 07072  | .0581 63482  | .1590 89625  | .3794 25983  |
| .5127  | .9983 12883  | .0580 63651  | .1593 27578  | .3796 41904  |
| .5128  | .9983 18684  | .0579 63820  | .1595 65553  | .3798 57849  |
| .5129  | .9983 24476  | .0578 63988  | .1598 03550  | .3800 73817  |
| 1.5130 | 0.9983 30257 | 0.0577 64155 | 2.1600 41568 | 2.3802 89809 |
| .5131  | .9983 36029  | .0576 64322  | .1602 79608  | .3805 05825  |
| .5132  | .9983 41790  | .0575 64488  | .1605 17669  | .3807 21865  |
| .5133  | .9983 47542  | .0574 64653  | .1607 55752  | .3809 37929  |
| .5134  | .9983 53283  | .0573 64818  | .1609 93857  | .3811 54016  |
| 1.5135 | 0.9983 59014 | 0.0572 64983 | 2.1612 31983 | 2.3813 70128 |
| .5136  | .9983 64736  | .0571 65146  | .1614 70131  | .3815 86263  |
| .5137  | .9983 70447  | .0570 65310  | .1617 08300  | .3818 02422  |
| .5138  | .9983 76149  | .0569 65472  | .1619 46491  | .3820 18604  |
| .5139  | .9983 81841  | .0568 65634  | .1621 84704  | .3822 34811  |
| 1.5140 | 0.9983 87522 | 0.0567 65796 | 2.1624 22938 | 2.3824 51041 |
| .5141  | .9983 93194  | .0566 65957  | .1626 61194  | .3826 67296  |
| .5142  | .9983 98855  | .0565 66117  | .1628 99472  | .3828 83574  |
| .5143  | .9984 04507  | .0564 66277  | .1631 37771  | .3830 99875  |
| .5144  | .9984 10149  | .0563 66436  | .1633 76092  | .3833 16201  |
| 1.5145 | 0.9984 15780 | 0.0562 66595 | 2.1636 14434 | 2.3835 32551 |
| .5146  | .9984 21402  | .0561 66753  | .1638 52798  | .3837 48924  |
| .5147  | .9984 27014  | .0560 66911  | .1640 91184  | .3839 65321  |
| .5148  | .9984 32615  | .0559 67068  | .1643 29591  | .3841 81742  |
| .5149  | .9984 38207  | .0558 67224  | .1645 68020  | .3843 98187  |

| x      | sin x        | cos x        | tan x        | cot x        |
|--------|--------------|--------------|--------------|--------------|
| 1.5150 | 0.9984 43789 | 0.0527 87380 | 2.1643 06471 | 2.3846 14656 |
| .5151  | .9984 49361  | .0528 87536  | .1650 44945  | .3848 31148  |
| .5152  | .9984 54922  | .0528 87690  | .1652 83437  | .3850 47665  |
| .5153  | .9984 60474  | .0528 87845  | .1655 21953  | .3852 64205  |
| .5154  | .9984 66016  | .0528 87998  | .1657 60490  | .3854 80769  |
| 1.5155 | 0.9984 71548 | 0.0528 88151 | 2.1659 99049 | 2.3856 97357 |
| .5156  | .9984 77069  | .0529 88304  | .1662 37630  | .3859 13969  |
| .5157  | .9984 82581  | .0529 88456  | .1664 76232  | .3861 30605  |
| .5158  | .9984 88083  | .0529 88607  | .1667 14856  | .3863 47264  |
| .5159  | .9984 93575  | .0529 88758  | .1669 53501  | .3865 63948  |
| 1.5160 | 0.9984 99057 | 0.0529 88909 | 2.1671 92168 | 2.3867 80655 |
| .5161  | .9985 04529  | .0529 89058  | .1674 30857  | .3869 97386  |
| .5162  | .9985 09991  | .0529 89208  | .1676 69568  | .3872 14141  |
| .5163  | .9985 15443  | .0529 89356  | .1679 08300  | .3874 30920  |
| .5164  | .9985 20885  | .0529 89505  | .1681 47054  | .3876 47723  |
| 1.5165 | 0.9985 26317 | 0.0529 89652 | 2.1683 85830 | 2.3878 64549 |
| .5166  | .9985 31739  | .0530 89799  | .1686 24617  | .3880 81400  |
| .5167  | .9985 37151  | .0530 89946  | .1688 63416  | .3882 98274  |
| .5168  | .9985 42553  | .0530 90092  | .1691 02287  | .3885 15173  |
| .5169  | .9985 47945  | .0530 90237  | .1693 41149  | .3887 32095  |
| 1.5170 | 0.9985 53327 | 0.0530 90382 | 2.1695 80033 | 2.3889 49041 |
| .5171  | .9985 58699  | .0530 90527  | .1698 18939  | .3891 66011  |
| .5172  | .9985 64061  | .0530 90671  | .1700 57866  | .3893 83005  |
| .5173  | .9985 69413  | .0530 90814  | .1702 96815  | .3896 00022  |
| .5174  | .9985 74755  | .0530 90957  | .1705 35786  | .3898 17064  |
| 1.5175 | 0.9985 80087 | 0.0530 91099 | 2.1707 74770 | 2.3900 34130 |
| .5176  | .9985 85409  | .0531 91241  | .1710 13793  | .3902 51219  |
| .5177  | .9985 90721  | .0531 91382  | .1712 52829  | .3904 68332  |
| .5178  | .9985 96023  | .0531 91523  | .1714 91887  | .3906 85470  |
| .5179  | .9986 01315  | .0531 91663  | .1717 30966  | .3909 02631  |
| 1.5180 | 0.9986 06598 | 0.0531 91802 | 2.1719 70067 | 2.3911 19816 |
| .5181  | .9986 11870  | .0531 91941  | .1722 09190  | .3913 37025  |
| .5182  | .9986 17132  | .0531 92080  | .1724 48335  | .3915 54258  |
| .5183  | .9986 22384  | .0531 92218  | .1726 87501  | .3917 71514  |
| .5184  | .9986 27626  | .0531 92355  | .1729 26689  | .3919 88795  |
| 1.5185 | 0.9986 32859 | 0.0531 92492 | 2.1731 65899 | 2.3922 06100 |
| .5186  | .9986 38081  | .0531 92629  | .1734 05130  | .3924 23428  |
| .5187  | .9986 43293  | .0531 92765  | .1736 44383  | .3926 40781  |
| .5188  | .9986 48496  | .0531 92900  | .1738 83658  | .3928 58157  |
| .5189  | .9986 53688  | .0531 93035  | .1741 22955  | .3930 75558  |
| 1.5190 | 0.9986 58870 | 0.0531 93170 | 2.1743 62274 | 2.3932 92982 |
| .5191  | .9986 64042  | .0531 93303  | .1746 01614  | .3935 10430  |
| .5192  | .9986 69205  | .0531 93437  | .1748 40976  | .3937 27902  |
| .5193  | .9986 74357  | .0531 93570  | .1750 80359  | .3939 45398  |
| .5194  | .9986 79500  | .0531 93702  | .1753 19765  | .3941 62918  |
| 1.5195 | 0.9986 84632 | 0.0531 93834 | 2.1755 59192 | 2.3943 80462 |
| .5196  | .9986 89754  | .0531 93965  | .1757 98641  | .3945 98030  |
| .5197  | .9986 94867  | .0531 94096  | .1760 38111  | .3948 15622  |
| .5198  | .9986 99969  | .0531 94226  | .1762 77604  | .3950 33238  |
| .5199  | .9987 05062  | .0531 94356  | .1765 17118  | .3952 50877  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 1.5200 | 0.9987 10144 | 0.0507 74485 | 2.1767 56654 | 2.3954 68541 |
| .5201  | .9987 15216  | .0506 74614  | .1769 96212  | .3956 86229  |
| .5202  | .9987 20279  | .0505 74742  | .1772 35791  | .3959 03940  |
| .5203  | .9987 25331  | .0504 74870  | .1774 75393  | .3961 21676  |
| .5204  | .9987 30374  | .0503 74997  | .1777 15016  | .3963 39435  |
| 1.5205 | 0.9987 35406 | 0.0502 75124 | 2.1779 54661 | 2.3965 57219 |
| .5206  | .9987 40429  | .0501 75250  | .1781 94327  | .3967 75026  |
| .5207  | .9987 45441  | .0500 75375  | .1784 34016  | .3969 92858  |
| .5208  | .9987 50444  | .0499 75501  | .1786 73726  | .3972 10713  |
| .5209  | .9987 55437  | .0498 75625  | .1789 13458  | .3974 28592  |
| 1.5210 | 0.9987 60419 | 0.0497 75750 | 2.1791 53211 | 2.3976 46496 |
| .5211  | .9987 65392  | .0496 75873  | .1793 92987  | .3978 64423  |
| .5212  | .9987 70354  | .0495 75996  | .1796 32784  | .3980 82374  |
| .5213  | .9987 75307  | .0494 76119  | .1798 72603  | .3983 00350  |
| .5214  | .9987 80249  | .0493 76241  | .1801 12444  | .3985 18349  |
| 1.5215 | 0.9987 85182 | 0.0492 76363 | 2.1803 52307 | 2.3987 36372 |
| .5216  | .9987 90105  | .0491 76484  | .1805 92192  | .3989 54419  |
| .5217  | .9987 95017  | .0490 76605  | .1808 32098  | .3991 72491  |
| .5218  | .9987 99920  | .0489 76725  | .1810 72026  | .3993 90586  |
| .5219  | .9988 04813  | .0488 76845  | .1813 11976  | .3996 08705  |
| 1.5220 | 0.9988 09695 | 0.0487 76964 | 2.1815 51948 | 2.3998 26848 |
| .5221  | .9988 14568  | .0486 77083  | .1817 91941  | .4000 45015  |
| .5222  | .9988 19431  | .0485 77202  | .1820 31957  | .4002 63207  |
| .5223  | .9988 24284  | .0484 77319  | .1822 71994  | .4004 81422  |
| .5224  | .9988 29126  | .0483 77437  | .1825 12053  | .4006 99661  |
| 1.5225 | 0.9988 33959 | 0.0482 77554 | 2.1827 52134 | 2.4009 17924 |
| .5226  | .9988 38782  | .0481 77670  | .1829 92237  | .4011 36211  |
| .5227  | .9988 43595  | .0480 77786  | .1832 32361  | .4013 54523  |
| .5228  | .9988 48397  | .0479 77901  | .1834 72508  | .4015 72858  |
| .5229  | .9988 53190  | .0478 78016  | .1837 12676  | .4017 91217  |
| 1.5230 | 0.9988 57973 | 0.0477 78131 | 2.1839 52866 | 2.4020 09600 |
| .5231  | .9988 62746  | .0476 78244  | .1841 93078  | .4022 28008  |
| .5232  | .9988 67509  | .0475 78358  | .1844 33312  | .4024 46439  |
| .5233  | .9988 72262  | .0474 78471  | .1846 73567  | .4026 64894  |
| .5234  | .9988 77004  | .0473 78584  | .1849 13844  | .4028 83374  |
| 1.5235 | 0.9988 81737 | 0.0472 78696 | 2.1851 54144 | 2.4031 01877 |
| .5236  | .9988 86460  | .0471 78807  | .1853 94465  | .4033 20405  |
| .5237  | .9988 91173  | .0470 78918  | .1856 34808  | .4035 38956  |
| .5238  | .9988 95876  | .0469 79029  | .1858 75173  | .4037 57532  |
| .5239  | .9989 00569  | .0468 79139  | .1861 15559  | .4039 76131  |
| 1.5240 | 0.9989 05252 | 0.0467 79249 | 2.1863 55968 | 2.4041 94755 |
| .5241  | .9989 09925  | .0466 79358  | .1865 96398  | .4044 13402  |
| .5242  | .9989 14588  | .0465 79467  | .1868 36851  | .4046 32074  |
| .5243  | .9989 19241  | .0464 79575  | .1870 77325  | .4048 50770  |
| .5244  | .9989 23883  | .0463 79683  | .1873 17821  | .4050 69489  |
| 1.5245 | 0.9989 28516 | 0.0462 79790 | 2.1875 58339 | 2.4052 88233 |
| .5246  | .9989 33139  | .0461 79897  | .1877 98798  | .4055 07001  |
| .5247  | .9989 37752  | .0460 80004  | .1880 39440  | .4057 25793  |
| .5248  | .9989 42355  | .0459 80110  | .1882 80024  | .4059 44609  |
| .5249  | .9989 46948  | .0458 80215  | .1885 20629  | .4061 63449  |



| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.5250 | 0.9989 51531 | 0.0457 80320 | 2.1887 61256 | 2.4063 82313 |
| .5251  | .9989 56105  | .0456 80425  | .1890 01905  | .4066 01201  |
| .5252  | .9989 60668  | .0455 80529  | .1892 42576  | .4068 20113  |
| .5253  | .9989 65221  | .0454 80633  | .1894 83269  | .4070 39050  |
| .5254  | .9989 69764  | .0453 80736  | .1897 23984  | .4072 58010  |
| 1.5255 | 0.9989 74297 | 0.0452 80839 | 2.1899 64721 | 2.4074 76995 |
| .5256  | .9989 78820  | .0451 80941  | .1902 05480  | .4076 96003  |
| .5257  | .9989 83333  | .0450 81043  | .1904 46260  | .4079 15036  |
| .5258  | .9989 87836  | .0449 81145  | .1906 87063  | .4081 34092  |
| .5259  | .9989 92329  | .0448 81246  | .1909 27887  | .4083 53173  |
| 1.5260 | 0.9989 96812 | 0.0447 81346 | 2.1911 68733 | 2.4085 72278 |
| .5261  | .9990 01285  | .0446 81446  | .1914 09601  | .4087 91407  |
| .5262  | .9990 05749  | .0445 81546  | .1916 50492  | .4090 10560  |
| .5263  | .9990 10202  | .0444 81645  | .1918 91404  | .4092 29737  |
| .5264  | .9990 14645  | .0443 81744  | .1921 32338  | .4094 48938  |
| 1.5265 | 0.9990 19078 | 0.0442 81842 | 2.1923 73293 | 2.4096 68163 |
| .5266  | .9990 23501  | .0441 81940  | .1926 14271  | .4098 87413  |
| .5267  | .9990 27915  | .0440 82037  | .1928 55271  | .4101 06686  |
| .5268  | .9990 32318  | .0439 82134  | .1930 96293  | .4103 25984  |
| .5269  | .9990 36711  | .0438 82231  | .1933 37336  | .4105 45305  |
| 1.5270 | 0.9990 41094 | 0.0437 82327 | 2.1935 78402 | 2.4107 64651 |
| .5271  | .9990 45467  | .0436 82423  | .1938 19489  | .4109 84021  |
| .5272  | .9990 49831  | .0435 82518  | .1940 60598  | .4112 03415  |
| .5273  | .9990 54184  | .0434 82613  | .1943 01730  | .4114 22833  |
| .5274  | .9990 58527  | .0433 82707  | .1945 42883  | .4116 42276  |
| 1.5275 | 0.9990 62860 | 0.0432 82801 | 2.1947 84058 | 2.4118 61742 |
| .5276  | .9990 67184  | .0431 82895  | .1950 25255  | .4120 81232  |
| .5277  | .9990 71497  | .0430 82988  | .1952 66474  | .4123 00747  |
| .5278  | .9990 75800  | .0429 83080  | .1955 07715  | .4125 20286  |
| .5279  | .9990 80094  | .0428 83172  | .1957 48978  | .4127 39848  |
| 1.5280 | 0.9990 84377 | 0.0427 83264 | 2.1959 90263 | 2.4129 59435 |
| .5281  | .9990 88650  | .0426 83356  | .1962 31570  | .4131 79047  |
| .5282  | .9990 92914  | .0425 83447  | .1964 72899  | .4133 98682  |
| .5283  | .9990 97167  | .0424 83537  | .1967 14250  | .4136 18341  |
| .5284  | .9991 01410  | .0423 83627  | .1969 55623  | .4138 38025  |
| 1.5285 | 0.9991 05644 | 0.0422 83717 | 2.1971 97018 | 2.4140 57732 |
| .5286  | .9991 09867  | .0421 83806  | .1974 38434  | .4142 77464  |
| .5287  | .9991 14080  | .0420 83895  | .1976 79873  | .4144 97220  |
| .5288  | .9991 18284  | .0419 83983  | .1979 21334  | .4147 17000  |
| .5289  | .9991 22477  | .0418 84071  | .1981 62817  | .4149 36804  |
| 1.5290 | 0.9991 26661 | 0.0417 84159 | 2.1984 04321 | 2.4151 56633 |
| .5291  | .9991 30834  | .0416 84246  | .1986 45848  | .4153 76485  |
| .5292  | .9991 34998  | .0415 84332  | .1988 87397  | .4155 96362  |
| .5293  | .9991 39151  | .0414 84419  | .1991 28967  | .4158 16263  |
| .5294  | .9991 43294  | .0413 84505  | .1993 70560  | .4160 36188  |
| .5295  | 0.9991 47428 | 0.0412 84590 | 2.1996 12174 | 2.4162 56137 |
| .5296  | .9991 51551  | .0411 84675  | .1998 53811  | .4164 76110  |
| .5297  | .9991 55665  | .0410 84760  | .2000 95470  | .4166 96107  |
| .5298  | .9991 59768  | .0409 84844  | .2003 37150  | .4169 16129  |
| .5299  | .9991 63862  | .0408 84928  | .2005 78853  | .4171 36176  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.5300 | 0.9991 67945 | 0.0407 85011 | 2.2008 20577 | 2.4173 56245 |
| .5301  | .9991 72019  | .0408 85094  | .2010 82324  | .4175 76339  |
| .5302  | .9991 76082  | .0405 85177  | .2013 04093  | .4177 96457  |
| .5303  | .9991 80136  | .0404 85259  | .2015 45283  | .4180 16600  |
| .5304  | .9991 84179  | .0403 85341  | .2017 37696  | .4182 36766  |
| 1.5305 | 0.9991 88213 | 0.0402 85422 | 2.2020 29531 | 2.4184 56957 |
| .5306  | .9991 92236  | .0401 85503  | .2022 71387  | .4186 77172  |
| .5307  | .9991 96250  | .0400 85584  | .2025 13286  | .4188 97412  |
| .5308  | .9992 00254  | .0399 85664  | .2027 55137  | .4191 17675  |
| .5309  | .9992 04247  | .0398 85744  | .2029 97090  | .4193 37963  |
| 1.5310 | 0.9992 08231 | 0.0397 85823 | 2.2032 39035 | 2.4195 58274 |
| .5311  | .9992 12204  | .0396 85902  | .2034 31001  | .4197 78610  |
| .5312  | .9992 16168  | .0395 85981  | .2037 22990  | .4199 98971  |
| .5313  | .9992 20121  | .0394 86059  | .2039 65001  | .4202 19355  |
| .5314  | .9992 24065  | .0393 86137  | .2042 07034  | .4204 39764  |
| 1.5315 | 0.9992 27999 | 0.0392 86214 | 2.2044 49089 | 2.4206 60196 |
| .5316  | .9992 31922  | .0391 86291  | .2046 91166  | .4208 80653  |
| .5317  | .9992 35836  | .0390 86368  | .2049 33265  | .4211 01135  |
| .5318  | .9992 39740  | .0389 86444  | .2051 75366  | .4213 21640  |
| .5319  | .9992 43633  | .0388 86520  | .2054 17530  | .4215 42170  |
| 1.5320 | 0.9992 47517 | 0.0387 86595 | 2.2056 59695 | 2.4217 62724 |
| .5321  | .9992 51391  | .0386 86670  | .2059 01882  | .4219 83302  |
| .5322  | .9992 55254  | .0385 86745  | .2061 44092  | .4222 03904  |
| .5323  | .9992 59108  | .0384 86819  | .2063 86323  | .4224 24531  |
| .5324  | .9992 62952  | .0383 86893  | .2066 28576  | .4226 45181  |
| 1.5325 | 0.9992 66785 | 0.0382 86967 | 2.2068 70852 | 2.4228 65856 |
| .5326  | .9992 70609  | .0381 87040  | .2071 13150  | .4230 86555  |
| .5327  | .9992 74423  | .0380 87112  | .2073 55469  | .4233 07279  |
| .5328  | .9992 78226  | .0379 87185  | .2075 97811  | .4235 28027  |
| .5329  | .9992 82020  | .0378 87257  | .2078 40175  | .4237 48798  |
| 1.5330 | 0.9992 85804 | 0.0377 87328 | 2.2080 82561 | 2.4239 69595 |
| .5331  | .9992 89578  | .0376 87400  | .2083 24969  | .4241 90415  |
| .5332  | .9992 93341  | .0375 87470  | .2085 67399  | .4244 11260  |
| .5333  | .9992 97095  | .0374 87541  | .2088 09851  | .4246 32128  |
| .5334  | .9993 00839  | .0373 87611  | .2090 52325  | .4248 53022  |
| 1.5335 | 0.9993 04573 | 0.0372 87681 | 2.2092 94322 | 2.4250 73939 |
| .5336  | .9993 08296  | .0371 87750  | .2095 37340  | .4252 94880  |
| .5337  | .9993 12010  | .0370 87819  | .2097 79881  | .4255 15846  |
| .5338  | .9993 15714  | .0369 87888  | .2100 22443  | .4257 36836  |
| .5339  | .9993 19408  | .0368 87956  | .2102 65028  | .4259 57851  |
| 1.5340 | 0.9993 23092 | 0.0367 88024 | 2.2105 07635 | 2.4261 78889 |
| .5341  | .9993 26765  | .0366 88091  | .2107 50264  | .4263 99952  |
| .5342  | .9993 30429  | .0365 88158  | .2109 92915  | .4266 21040  |
| .5343  | .9993 34083  | .0364 88225  | .2112 35588  | .4268 42151  |
| .5344  | .9993 37727  | .0363 88292  | .2114 78283  | .4270 63287  |
| 1.5345 | 0.9993 41361 | 0.0362 88358 | 2.2117 21001 | 2.4272 84447 |
| .5346  | .9993 44984  | .0361 88423  | .2119 63740  | .4275 05631  |
| .5347  | .9993 48598  | .0360 88489  | .2122 06502  | .4277 26839  |
| .5348  | .9993 52202  | .0359 88554  | .2124 49286  | .4279 48072  |
| .5349  | .9993 55796  | .0358 88618  | .2126 92091  | .4281 69329  |

| X      | Y1000        | Y1000        | Y1000         | Y1000        |
|--------|--------------|--------------|---------------|--------------|
| 1.5350 | 0.9993 89380 | 0.0337 86683 | 2.13127 86619 | 2.4336 86611 |
| .5351  | .9993 89384  | .0338 86746  | .1313 86770   | .4336 11918  |
| .5352  | .9993 86515  | .0335 86910  | .1314 86848   | .4336 83848  |
| .5353  | .9993 70772  | .0334 86973  | .1315 86936   | .4336 54600  |
| .5354  | .9993 75315  | .0335 86996  | .1316 86968   | .4336 75876  |
| 1.5355 | 0.9993 77140 | 0.0335 86993 | 2.13141 86961 | 2.4334 87388 |
| .5356  | .9993 80673  | .0331 89080  | .1315 86982   | .4337 12809  |
| .5357  | .9993 84137  | .0330 89123  | .1316 87053   | .4337 80250  |
| .5358  | .9993 87691  | .0329 89184  | .1317 87140   | .4337 61736  |
| .5359  | .9993 91185  | .0328 89245  | .1318 87267   | .4338 83236  |
| 1.5360 | 0.9993 84369 | 0.0337 89305 | 2.13161 87417 | 2.4336 86760 |
| .5361  | .9993 88143  | .0337 89338  | .1318 87488   | .4338 86309  |
| .5362  | .9994 01807  | .0337 89426  | .1319 87568   | .4310 47382  |
| .5363  | .9994 05061  | .0344 89485  | .1320 87639   | .4312 69479  |
| .5364  | .9994 08505  | .0345 89545  | .1321 87736   | .4314 91100  |
| 1.5365 | 0.9994 11939 | 0.0348 89604 | 2.21165 79966 | 2.4317 12746 |
| .5366  | .9994 15363  | .0341 89662  | .1322 87879   | .4319 34416  |
| .5367  | .9994 18777  | .0340 89721  | .1323 87983   | .4321 56111  |
| .5368  | .9994 22181  | .0339 89779  | .1324 88010   | .4323 77330  |
| .5369  | .9994 25575  | .0338 89838  | .1325 88089   | .4325 99573  |
| 1.5370 | 0.9994 28959 | 0.0337 89894 | 2.21177 96130 | 2.4328 21340 |
| .5371  | .9994 32332  | .0336 89950  | .1326 88123   | .4330 43132  |
| .5372  | .9994 35696  | .0335 90007  | .1327 88232   | .4332 64948  |
| .5373  | .9994 39050  | .0334 90063  | .1328 88376   | .4334 86788  |
| .5374  | .9994 42385  | .0333 90119  | .1329 88456   | .4337 08653  |
| 1.5375 | 0.9994 45729 | 0.0332 90175 | 2.21190 12813 | 2.4339 30542 |
| .5376  | .9994 49053  | .0331 90230  | .1329 88522   | .4341 52456  |
| .5377  | .9994 52367  | .0330 90285  | .1330 88648   | .4343 74394  |
| .5378  | .9994 55671  | .0329 90340  | .1331 88797   | .4345 96356  |
| .5379  | .9994 58965  | .0328 90394  | .1332 88967   | .4346 18342  |
| 1.5380 | 0.9994 62249 | 0.0327 90448 | 2.22202 30060 | 2.4350 40353 |
| .5381  | .9994 65523  | .0326 90501  | .1332 89076   | .4352 62388  |
| .5382  | .9994 68787  | .0325 90555  | .1333 89213   | .4354 84448  |
| .5383  | .9994 72041  | .0324 90608  | .1334 89372   | .4357 06532  |
| .5384  | .9994 75285  | .0323 90660  | .1335 89544   | .4359 28640  |
| 1.5385 | 0.9994 78519 | 0.0322 90713 | 2.22114 47858 | 2.4361 50772 |
| .5386  | .9994 81743  | .0321 90765  | .1336 89684   | .4363 72929  |
| .5387  | .9994 84957  | .0320 90816  | .1337 89813   | .4365 95111  |
| .5388  | .9994 88161  | .0319 90868  | .1338 89963   | .4368 17316  |
| .5389  | .9994 91355  | .0318 90919  | .1339 90124   | .4370 39547  |
| 1.5390 | 0.9994 94539 | 0.0317 90969 | 2.22226 66211 | 2.4372 61801 |
| .5391  | .9994 97713  | .0316 91020  | .1340 90249   | .4374 84080  |
| .5392  | .9995 00878  | .0315 91070  | .1341 90398   | .4377 06383  |
| .5393  | .9995 04032  | .0314 91120  | .1342 90549   | .4379 28711  |
| .5394  | .9995 07176  | .0313 91169  | .1343 90704   | .4381 51062  |
| 1.5395 | 0.9995 10310 | 0.0312 91218 | 2.22238 85120 | 2.4383 73439 |
| .5396  | .9995 13434  | .0311 91267  | .1344 90866   | .4385 95840  |
| .5397  | .9995 16548  | .0310 91315  | .1345 91033   | .4388 18265  |
| .5398  | .9995 19652  | .0309 91364  | .1346 91202   | .4390 40714  |
| .5399  | .9995 22746  | .0308 91412  | .1347 91374   | .4392 63188  |

| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 1.5400 | 0.9995 25831 | 0.0307 91459 | 2.2251 04585 | 2.4394 85686 |
| .5401  | .9995 28905  | .0306 91506  | .2253 48544  | .4397 08209  |
| .5402  | .9995 31969  | .0305 91553  | .2255 92526  | .4399 30756  |
| .5403  | .9995 35023  | .0304 91600  | .2258 36531  | .4401 53327  |
| .5404  | .9995 38067  | .0303 91646  | .2260 80557  | .4403 75923  |
| 1.5405 | 0.9995 41101 | 0.0302 91692 | 2.2263 24606 | 2.4405 98543 |
| .5406  | .9995 44126  | .0301 91738  | .2265 68677  | .4408 21188  |
| .5407  | .9995 47140  | .0300 91784  | .2268 12770  | .4410 43857  |
| .5408  | .9995 50144  | .0299 91829  | .2270 56886  | .4412 66551  |
| .5409  | .9995 53138  | .0298 91873  | .2273 01023  | .4414 89269  |
| 1.5410 | 0.9995 56122 | 0.0297 91918 | 2.2275 45183 | 2.4417 12011 |
| .5411  | .9995 59096  | .0296 91962  | .2277 89366  | .4419 34778  |
| .5412  | .9995 62061  | .0295 92006  | .2280 33570  | .4421 57569  |
| .5413  | .9995 65015  | .0294 92050  | .2282 77797  | .4423 80384  |
| .5414  | .9995 67959  | .0293 92093  | .2285 22046  | .4426 03224  |
| 1.5415 | 0.9995 70893 | 0.0292 92136 | 2.2287 66318 | 2.4428 26089 |
| .5416  | .9995 73818  | .0291 92179  | .2290 10612  | .4430 48978  |
| .5417  | .9995 76732  | .0290 92221  | .2292 54928  | .4432 71891  |
| .5418  | .9995 79636  | .0289 92264  | .2294 99266  | .4434 94829  |
| .5419  | .9995 82530  | .0288 92306  | .2297 43627  | .4437 17791  |
| 1.5420 | 0.9995 85414 | 0.0287 92347 | 2.2299 88010 | 2.4439 40777 |
| .5421  | .9995 88289  | .0286 92388  | .2302 32415  | .4441 63788  |
| .5422  | .9995 91153  | .0285 92430  | .2304 76842  | .4443 86824  |
| .5423  | .9995 94007  | .0284 92470  | .2307 21292  | .4446 09884  |
| .5424  | .9995 96851  | .0283 92511  | .2309 65764  | .4448 32968  |
| 1.5425 | 0.9995 99686 | 0.0282 92551 | 2.2312 10259 | 2.4450 56077 |
| .5426  | .9996 02510  | .0281 92591  | .2314 54776  | .4452 79210  |
| .5427  | .9996 05324  | .0280 92630  | .2316 99315  | .4455 02368  |
| .5428  | .9996 08128  | .0279 92670  | .2319 43876  | .4457 25550  |
| .5429  | .9996 10923  | .0278 92709  | .2321 88460  | .4459 48757  |
| 1.5430 | 0.9996 13707 | 0.0277 92748 | 2.2324 33066 | 2.4461 71988 |
| .5431  | .9996 16481  | .0276 92786  | .2326 77694  | .4463 95243  |
| .5432  | .9996 19246  | .0275 92824  | .2329 22345  | .4466 18523  |
| .5433  | .9996 22000  | .0274 92862  | .2331 67018  | .4468 41828  |
| .5434  | .9996 24744  | .0273 92900  | .2334 11713  | .4470 65157  |
| 1.5435 | 0.9996 27478 | 0.0272 92937 | 2.2336 56431 | 2.4472 88510 |
| .5436  | .9996 30203  | .0271 92974  | .2339 01171  | .4475 11888  |
| .5437  | .9996 32917  | .0270 93011  | .2341 45933  | .4477 35290  |
| .5438  | .9996 35621  | .0269 93048  | .2343 90718  | .4479 58717  |
| .5439  | .9996 38316  | .0268 93084  | .2346 35525  | .4481 82168  |
| 1.5440 | 0.9996 41000 | 0.0267 93120 | 2.2348 80354 | 2.4484 05644 |
| .5441  | .9996 43674  | .0266 93156  | .2351 25206  | .4486 29144  |
| .5442  | .9996 46339  | .0265 93191  | .2353 70080  | .4488 52669  |
| .5443  | .9996 48993  | .0264 93227  | .2356 14977  | .4490 76218  |
| .5444  | .9996 51637  | .0263 93262  | .2358 59895  | .4492 99792  |
| 1.5445 | 0.9996 54272 | 0.0262 93296 | 2.2361 04837 | 2.4495 23390 |
| .5446  | .9996 56896  | .0261 93331  | .2363 49800  | .4497 47013  |
| .5447  | .9996 59510  | .0260 93365  | .2365 94786  | .4499 70660  |
| .5448  | .9996 62115  | .0259 93399  | .2368 39794  | .4501 94332  |
| .5449  | .9996 64709  | .0258 93432  | .2370 84825  | .4504 18028  |

| x      | sin x        | cos x        | tanh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.5450 | 0.9996 37293 | 0.0257 93466 | 2.2375 29273 | 2.4500 41749 |
| .5451  | .9996 59868  | .0256 93499  | .2375 74953  | .4500 65494  |
| .5452  | .9996 72432  | .0255 93532  | .2375 93051  | .4500 89264  |
| .5453  | .9996 74966  | .0254 93565  | .2380 65177  | .4515 13063  |
| .5454  | .9996 77511  | .0253 93597  | .2423 10012  | .4515 36877  |
| 1.5455 | 0.9996 80063 | 0.0252 93629 | 2.2380 85474 | 2.4517 60720 |
| .5456  | .9996 82589  | .0251 93661  | .2380 30690  | .4519 84582  |
| .5457  | .9996 85104  | .0250 93692  | .2380 48375  | .4522 08481  |
| .5458  | .9996 87608  | .0249 93724  | .2392 91107  | .4524 32597  |
| .5459  | .9996 90102  | .0248 93755  | .2395 86362  | .4526 56359  |
| 1.5460 | 0.9996 92587 | 0.0247 93786 | 2.2397 81669 | 2.4528 80305 |
| .5461  | .9996 95061  | .0246 93816  | .2397 59792  | .4531 04295  |
| .5462  | .9996 97526  | .0245 93847  | .2397 78360  | .4533 28310  |
| .5463  | .9996 99980  | .0244 93877  | .2405 17604  | .4535 52350  |
| .5464  | .9997 02424  | .0243 93907  | .2407 62870  | .4537 76414  |
| 1.5465 | 0.9997 04859 | 0.0242 93936 | 2.2410 98359 | 2.4540 00502 |
| .5466  | .9997 07283  | .0241 93966  | .2410 53770  | .4542 24615  |
| .5467  | .9997 09696  | .0240 93995  | .2412 99264  | .4544 48753  |
| .5468  | .9997 12102  | .0239 94024  | .2417 44500  | .4546 72915  |
| .5469  | .9997 14496  | .0238 94053  | .2419 90135  | .4548 97202  |
| 1.5470 | 0.9997 16881 | 0.0237 94081 | 2.2422 85689 | 2.4551 21513 |
| .5471  | .9997 19255  | .0236 94109  | .2422 61165  | .4553 45549  |
| .5472  | .9997 21620  | .0235 94137  | .2427 86708  | .4555 69609  |
| .5473  | .9997 23974  | .0234 94165  | .2429 72277  | .4557 94094  |
| .5474  | .9997 26318  | .0233 94192  | .2432 17827  | .4560 18404  |
| 1.5475 | 0.9997 28653 | 0.0232 94220 | 2.2434 93400 | 2.4562 42738 |
| .5476  | .9997 30977  | .0231 94247  | .2437 09116  | .4564 67097  |
| .5477  | .9997 33292  | .0230 94273  | .2439 54774  | .4566 91480  |
| .5478  | .9997 35596  | .0229 94300  | .2442 00454  | .4569 15887  |
| .5479  | .9997 37891  | .0228 94326  | .2444 46157  | .4571 40320  |
| 1.5480 | 0.9997 40175 | 0.0227 94352 | 2.2446 91882 | 2.4573 64777 |
| .5481  | .9997 42449  | .0226 94378  | .2449 37630  | .4575 89258  |
| .5482  | .9997 44714  | .0225 94404  | .2451 83400  | .4578 13764  |
| .5483  | .9997 46968  | .0224 94429  | .2454 29193  | .4580 38295  |
| .5484  | .9997 49213  | .0223 94455  | .2456 75008  | .4582 62850  |
| 1.5485 | 0.9997 51447 | 0.0222 94479 | 2.2459 20845 | 2.4584 87430 |
| .5486  | .9997 53672  | .0221 94504  | .2461 66705  | .4587 12034  |
| .5487  | .9997 55886  | .0220 94529  | .2464 12523  | .4589 36663  |
| .5488  | .9997 58091  | .0219 94553  | .2466 58492  | .4591 61317  |
| .5489  | .9997 60285  | .0218 94577  | .2469 04420  | .4593 85995  |
| 1.5490 | 0.9997 62469 | 0.0217 94601 | 2.2471 50370 | 2.4596 10698 |
| .5491  | .9997 64644  | .0216 94625  | .2473 96342  | .4598 35425  |
| .5492  | .9997 66808  | .0215 94648  | .2476 42337  | .4600 60177  |
| .5493  | .9997 68963  | .0214 94671  | .2478 88354  | .4602 84953  |
| .5494  | .9997 71107  | .0213 94694  | .2481 34394  | .4605 09755  |
| 1.5495 | 0.9997 73242 | 0.0212 94717 | 2.2483 80456 | 2.4607 34580 |
| .5496  | .9997 75366  | .0211 94740  | .2486 26541  | .4609 59431  |
| .5497  | .9997 77481  | .0210 94762  | .2488 72648  | .4611 84306  |
| .5498  | .9997 79585  | .0209 94784  | .2491 18778  | .4614 09205  |
| .5499  | .9997 81680  | .0208 94806  | .2493 64930  | .4616 34129  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.5500 | 0.9997 83764 | 0.0207 94828 | 2.2496 11104 | 2.4618 59078 |
| .5501  | .9997 85839  | .0206 94849  | .2498 57302  | .4620 84052  |
| .5502  | .9997 87903  | .0205 94871  | .2501 03521  | .4623 09050  |
| .5503  | .9997 89958  | .0204 94892  | .2503 49763  | .4625 34072  |
| .5504  | .9997 92002  | .0203 94913  | .2505 96028  | .4627 59120  |
| 1.5505 | 0.9997 94037 | 0.0202 94933 | 2.2508 42315 | 2.4629 84192 |
| .5506  | .9997 96061  | .0201 94954  | .2510 88625  | .4632 09288  |
| .5507  | .9997 98076  | .0200 94974  | .2513 34957  | .4634 34409  |
| .5508  | .9998 00080  | .0199 94994  | .2515 81312  | .4636 59555  |
| .5509  | .9998 02075  | .0198 95014  | .2518 27689  | .4638 84726  |
| 1.5510 | 0.9998 04059 | 0.0197 95034 | 2.2520 74089 | 2.4641 09921 |
| .5511  | .9998 06034  | .0196 95053  | .2523 20511  | .4643 35140  |
| .5512  | .9998 07998  | .0195 95073  | .2525 66956  | .4645 60385  |
| .5513  | .9998 09953  | .0194 95092  | .2528 13423  | .4647 85654  |
| .5514  | .9998 11897  | .0193 95111  | .2530 59913  | .4650 10947  |
| 1.5515 | 0.9998 13832 | 0.0192 95129 | 2.2533 06425 | 2.4652 36266 |
| .5516  | .9998 15756  | .0191 95148  | .2535 52960  | .4654 61609  |
| .5517  | .9998 17671  | .0190 95166  | .2537 99518  | .4656 86976  |
| .5518  | .9998 19575  | .0189 95184  | .2540 46097  | .4659 12369  |
| .5519  | .9998 21470  | .0188 95202  | .2542 92700  | .4661 37786  |
| 1.5520 | 0.9998 23354 | 0.0187 95220 | 2.2545 53325 | 2.4663 63227 |
| .5521  | .9998 25229  | .0186 95238  | .2547 85973  | .4665 88693  |
| .5522  | .9998 27093  | .0185 95255  | .2550 32643  | .4668 14184  |
| .5523  | .9998 28948  | .0184 95272  | .2552 79335  | .4670 39700  |
| .5524  | .9998 30792  | .0183 95289  | .2555 26051  | .4672 65240  |
| 1.5525 | 0.9998 32627 | 0.0182 95306 | 2.2557 72789 | 2.4674 90805 |
| .5526  | .9998 34451  | .0181 95323  | .2560 19549  | .4677 16395  |
| .5527  | .9998 36266  | .0180 95339  | .2562 66332  | .4679 42009  |
| .5528  | .9998 38070  | .0179 95355  | .2565 13137  | .4681 67648  |
| .5529  | .9998 39865  | .0178 95372  | .2567 59965  | .4683 93312  |
| 1.5530 | 0.9998 41650 | 0.0177 95387 | 2.2570 06816 | 2.4686 19000 |
| .5531  | .9998 43424  | .0176 95403  | .2572 53689  | .4688 44713  |
| .5532  | .9998 45189  | .0175 95419  | .2575 00585  | .4690 70451  |
| .5533  | .9998 46943  | .0174 95434  | .2577 47503  | .4692 96213  |
| .5534  | .9998 48688  | .0173 95449  | .2579 94444  | .4695 22000  |
| 1.5535 | 0.9998 50422 | 0.0172 95464 | 2.2582 41408 | 2.4697 47812 |
| .5536  | .9998 52147  | .0171 95479  | .2584 88394  | .4699 73649  |
| .5537  | .9998 53861  | .0170 95494  | .2587 35302  | .4701 99510  |
| .5538  | .9998 55566  | .0169 95509  | .2589 82434  | .4704 25306  |
| .5539  | .9998 57260  | .0168 95523  | .2592 29487  | .4706 51306  |
| 1.5540 | 0.9998 58945 | 0.0167 95537 | 2.2594 76564 | 2.4708 77242 |
| .5541  | .9998 60620  | .0166 95551  | .2597 23663  | .4711 03202  |
| .5542  | .9998 62284  | .0165 95565  | .2599 70785  | .4713 29186  |
| .5543  | .9998 63939  | .0164 95579  | .2602 17929  | .4715 55196  |
| .5544  | .9998 65583  | .0163 95592  | .2604 65096  | .4717 81230  |
| 1.5545 | 0.9998 67218 | 0.0162 95606 | 2.2607 12285 | 2.4720 07289 |
| .5546  | .9998 68842  | .0161 95619  | .2609 59497  | .4722 33372  |
| .5547  | .9998 70457  | .0160 95632  | .2612 06732  | .4724 59481  |
| .5548  | .9998 72061  | .0159 95645  | .2614 53989  | .4726 85614  |
| .5549  | .9998 73656  | .0158 95657  | .2617 01269  | .4729 11771  |

| X      | sin X        | cos X        | tanh X       | cosh X       |
|--------|--------------|--------------|--------------|--------------|
| 1.5550 | 0.9998 88241 | 0.0155 95670 | 2.2219 68672 | 2.4751 37954 |
| .5551  | .9998 76815  | .0155 95682  | .2221 68697  | .4753 64161  |
| .5552  | .9998 78380  | .0155 95695  | .2222 43344  | .4755 90393  |
| .5553  | .9998 79954  | .0155 95707  | .2223 90614  | .4758 16650  |
| .5554  | .9998 81479  | .0155 95719  | .2224 88177  | .4760 42931  |
| 1.5555 | 0.9998 83013 | 0.0155 95730 | 2.2225 95695 | 2.4742 69237 |
| .5556  | .9998 84538  | .0155 95742  | .2225 95861  | .4744 95563  |
| .5557  | .9998 86053  | .0155 95753  | .2226 80322  | .4747 21924  |
| .5558  | .9998 87557  | .0149 95765  | .2229 27306  | .4749 48304  |
| .5559  | .9998 89052  | .0143 95776  | .2231 75312  | .4751 74710  |
| 1.5560 | 0.9998 90536 | 0.0147 95787 | 2.2244 22841 | 2.4754 01139 |
| .5561  | .9998 92011  | .0146 95798  | .2246 70392  | .4756 27594  |
| .5562  | .9998 93476  | .0145 95809  | .2249 17966  | .4758 54073  |
| .5563  | .9998 94930  | .0144 95819  | .2251 65563  | .4760 80578  |
| .5564  | .9998 96375  | .0143 95830  | .2254 13132  | .4763 07107  |
| 1.5565 | 0.9998 97809 | 0.0142 95840 | 2.2256 60824 | 2.4765 33660 |
| .5566  | .9998 99234  | .0141 95850  | .2259 08489  | .4767 60239  |
| .5567  | .9999 00648  | .0140 95860  | .2261 56176  | .4769 86842  |
| .5568  | .9999 02053  | .0139 95870  | .2264 03886  | .4772 13470  |
| .5569  | .9999 03448  | .0138 95880  | .2266 51619  | .4774 40123  |
| 1.5570 | 0.9999 04832 | 0.0137 95889 | 2.2268 99374 | 2.4776 66800 |
| .5571  | .9999 06207  | .0136 95899  | .2271 47152  | .4778 93503  |
| .5572  | .9999 07571  | .0135 95908  | .2273 94953  | .4781 20230  |
| .5573  | .9999 08926  | .0134 95917  | .2276 42776  | .4783 46982  |
| .5574  | .9999 10271  | .0133 95926  | .2278 90622  | .4785 73758  |
| 1.5575 | 0.9999 11605 | 0.0132 95935 | 2.2281 38491 | 2.4788 00560 |
| .5576  | .9999 12930  | .0131 95944  | .2283 86383  | .4790 27386  |
| .5577  | .9999 14244  | .0130 95952  | .2286 34297  | .4792 54237  |
| .5578  | .9999 15549  | .0129 95961  | .2288 82233  | .4794 81113  |
| .5579  | .9999 16844  | .0128 95969  | .2291 30193  | .4797 08014  |
| 1.5580 | 0.9999 18128 | 0.0127 95978 | 2.2293 78175 | 2.4799 34939 |
| .5581  | .9999 19403  | .0126 95986  | .2296 26180  | .4801 61889  |
| .5582  | .9999 20667  | .0125 95994  | .2298 74207  | .4803 88864  |
| .5583  | .9999 21922  | .0124 96002  | .2701 22258  | .4806 15864  |
| .5584  | .9999 23167  | .0123 96009  | .2703 70331  | .4808 42889  |
| 1.5585 | 0.9999 24401 | 0.0122 96017 | 2.2706 18426 | 2.4810 69938 |
| .5586  | .9999 25626  | .0121 96024  | .2708 66545  | .4812 97012  |
| .5587  | .9999 26840  | .0120 96032  | .2711 14686  | .4815 24111  |
| .5588  | .9999 28045  | .0119 96039  | .2713 62849  | .4817 51235  |
| .5589  | .9999 29240  | .0118 96046  | .2716 11036  | .4819 78384  |
| 1.5590 | 0.9999 30424 | 0.0117 96053 | 2.2718 59245 | 2.4822 05557 |
| .5591  | .9999 31599  | .0116 96060  | .2721 07477  | .4824 32756  |
| .5592  | .9999 32763  | .0115 96067  | .2723 55732  | .4826 59979  |
| .5593  | .9999 33918  | .0114 96074  | .2726 04009  | .4828 87227  |
| .5594  | .9999 35063  | .0113 96080  | .2728 52309  | .4831 14500  |
| 1.5595 | 0.9999 36197 | 0.0112 96087 | 2.2731 00632 | 2.4833 41797 |
| .5596  | .9999 37322  | .0111 96093  | .2733 48977  | .4835 69120  |
| .5597  | .9999 38436  | .0110 96099  | .2735 97346  | .4837 96467  |
| .5598  | .9999 39541  | .0109 96105  | .2738 45737  | .4840 23839  |
| .5599  | .9999 40636  | .0108 96111  | .2740 94150  | .4842 51236  |

| x      | sin x        | cos x        | sinh x       | cosh x       |
|--------|--------------|--------------|--------------|--------------|
| 1.5600 | 0.9999 41720 | 0.0107 96117 | 2.2743 42587 | 2.4844 78658 |
| .5601  | .9999 42795  | .0106 96123  | .2745 91046  | .4847 06105  |
| .5602  | .9999 43859  | .0105 96128  | .2748 39528  | .4849 33576  |
| .5603  | .9999 44914  | .0104 96134  | .2750 88033  | .4851 61073  |
| .5604  | .9999 45959  | .0103 96140  | .2753 36560  | .4853 88594  |
| 1.5605 | 0.9999 46993 | 0.0102 96145 | 2.2755 85111 | 2.4856 16140 |
| .5606  | .9999 48018  | .0101 96150  | .2758 33684  | .4858 43711  |
| .5607  | .9999 49033  | .0100 96155  | .2760 82279  | .4860 71307  |
| .5608  | .9999 50037  | .0099 96160  | .2763 30898  | .4862 98927  |
| .5609  | .9999 51032  | .0098 96165  | .2765 79539  | .4865 26573  |
| 1.5610 | 0.9999 52016 | 0.0097 96170 | 2.2768 28203 | 2.4867 54243 |
| .5611  | .9999 52991  | .0096 96175  | .2770 76890  | .4869 81939  |
| .5612  | .9999 53956  | .0095 96180  | .2773 25600  | .4872 09659  |
| .5613  | .9999 54910  | .0094 96184  | .2775 74332  | .4874 37404  |
| .5614  | .9999 55855  | .0093 96189  | .2778 23087  | .4876 65174  |
| 1.5615 | 0.9999 56789 | 0.0092 96193 | 2.2780 71865 | 2.4878 92968 |
| .5616  | .9999 57714  | .0091 96197  | .2783 20666  | .4881 20782  |
| .5617  | .9999 58629  | .0090 96201  | .2785 69489  | .4883 48633  |
| .5618  | .9999 59533  | .0089 96205  | .2788 18335  | .4885 76502  |
| .5619  | .9999 60428  | .0088 96209  | .2790 67204  | .4888 04396  |
| 1.5620 | 0.9999 61313 | 0.0087 96213 | 2.2793 16096 | 2.4890 32315 |
| .5621  | .9999 62187  | .0086 96217  | .2795 65011  | .4892 60259  |
| .5622  | .9999 63052  | .0085 96221  | .2798 13948  | .4894 88228  |
| .5623  | .9999 63906  | .0084 96225  | .2800 62909  | .4897 16222  |
| .5624  | .9999 64751  | .0083 96228  | .2803 11892  | .4899 44241  |
| 1.5625 | 0.9999 65586 | 0.0082 96232 | 2.2805 60897 | 2.4901 72285 |
| .5626  | .9999 66410  | .0081 96235  | .2808 09926  | .4904 00353  |
| .5627  | .9999 67225  | .0080 96238  | .2810 58977  | .4906 28447  |
| .5628  | .9999 68030  | .0079 96242  | .2813 08052  | .4908 56565  |
| .5629  | .9999 68824  | .0078 96245  | .2815 57149  | .4910 84708  |
| 1.5630 | 0.9999 69609 | 0.0077 96248 | 2.2818 06269 | 2.4913 12876 |
| .5631  | .9999 70383  | .0076 96251  | .2820 55411  | .4915 41069  |
| .5632  | .9999 71148  | .0075 96254  | .2823 04577  | .4917 69287  |
| .5633  | .9999 71903  | .0074 96257  | .2825 53765  | .4919 97530  |
| .5634  | .9999 72647  | .0073 96259  | .2828 02976  | .4922 25798  |
| 1.5635 | 0.9999 73382 | 0.0072 96262 | 2.2830 52210 | 2.4924 54091 |
| .5636  | .9999 74107  | .0071 96265  | .2833 01467  | .4926 82409  |
| .5637  | .9999 74821  | .0070 96267  | .2835 50747  | .4929 10751  |
| .5638  | .9999 75526  | .0069 96270  | .2838 00049  | .4931 39119  |
| .5639  | .9999 76220  | .0068 96272  | .2840 49375  | .4933 67511  |
| 1.5640 | 0.9999 76905 | 0.0067 96274 | 2.2842 98723 | 2.4935 95829 |
| .5641  | .9999 77580  | .0066 96277  | .2845 48094  | .4938 24371  |
| .5642  | .9999 78244  | .0065 96279  | .2847 97488  | .4940 52838  |
| .5643  | .9999 78899  | .0064 96281  | .2850 46904  | .4942 81330  |
| .5644  | .9999 79544  | .0063 96283  | .2852 96344  | .4945 09848  |
| 1.5645 | 0.9999 80178 | 0.0062 96285 | 2.2855 45806 | 2.4947 38390 |
| .5646  | .9999 80803  | .0061 96287  | .2857 95292  | .4949 66957  |
| .5647  | .9999 81417  | .0060 96289  | .2860 44800  | .4951 95549  |
| .5648  | .9999 82022  | .0059 96291  | .2862 94331  | .4954 24166  |
| .5649  | .9999 82617  | .0058 96293  | .2865 43865  | .4956 52808  |



| $x$    | $\sin x$     | $\cos x$     | $\sinh x$    | $\cosh x$    |
|--------|--------------|--------------|--------------|--------------|
| 1.5650 | 0.9999 83201 | 0.0057 96294 | 2.2867 93461 | 2.4958 81475 |
| .5651  | .9999 83776  | .0056 96296  | .2870 43061  | .4961 10166  |
| .5652  | .9999 84341  | .0055 96298  | .2872 92683  | .4963 38883  |
| .5653  | .9999 84895  | .0054 96299  | .2875 42329  | .4965 67625  |
| .5654  | .9999 85440  | .0053 96301  | .2877 91997  | .4967 96392  |
| 1.5655 | 0.9999 85974 | 0.0052 96302 | 2.2880 41688 | 2.4970 25183 |
| .5656  | .9999 86499  | .0051 96303  | .2882 91402  | .4972 54000  |
| .5657  | .9999 87014  | .0050 96305  | .2885 41139  | .4974 82842  |
| .5658  | .9999 87518  | .0049 96306  | .2887 90899  | .4977 11708  |
| .5659  | .9999 88013  | .0048 96307  | .2890 40681  | .4979 40600  |
| 1.5660 | 0.9999 88498 | 0.0047 96308 | 2.2892 90487 | 2.4981 69516 |
| .5661  | .9999 88972  | .0046 96310  | .2895 40315  | .4983 98458  |
| .5662  | .9999 89437  | .0045 96311  | .2897 90166  | .4986 27424  |
| .5663  | .9999 89892  | .0044 96312  | .2900 40041  | .4988 56416  |
| .5664  | .9999 90336  | .0043 96313  | .2902 89938  | .4990 85432  |
| 1.5665 | 0.9999 90771 | 0.0042 96314 | 2.2905 39858 | 2.4993 14474 |
| .5666  | .9999 91195  | .0041 96314  | .2907 89801  | .4995 43540  |
| .5667  | .9999 91610  | .0040 96315  | .2910 39766  | .4997 72632  |
| .5668  | .9999 92015  | .0039 96316  | .2912 89755  | .5000 01748  |
| .5669  | .9999 92409  | .0038 96317  | .2915 39767  | .5002 30890  |
| 1.5670 | 0.9999 92794 | 0.0037 96318 | 2.2917 89801 | 2.5004 60056 |
| .5671  | .9999 93169  | .0036 96318  | .2920 39859  | .5006 89248  |
| .5672  | .9999 93533  | .0035 96319  | .2922 89939  | .5009 18464  |
| .5673  | .9999 93888  | .0034 96320  | .2925 40042  | .5011 47706  |
| .5674  | .9999 94232  | .0033 96320  | .2927 90169  | .5013 76972  |
| 1.5675 | 0.9999 94567 | 0.0032 96321 | 2.2930 40318 | 2.5016 06264 |
| .5676  | .9999 94892  | .0031 96321  | .2932 90490  | .5018 35580  |
| .5677  | .9999 95206  | .0030 96322  | .2935 40685  | .5020 64922  |
| .5678  | .9999 95511  | .0029 96322  | .2937 90903  | .5022 94288  |
| .5679  | .9999 95806  | .0028 96323  | .2940 41144  | .5025 23680  |
| 1.5680 | 0.9999 96090 | 0.0027 96323 | 2.2942 91408 | 2.5027 53097 |
| .5681  | .9999 96365  | .0026 96324  | .2945 41694  | .5029 82538  |
| .5682  | .9999 96630  | .0025 96324  | .2947 92004  | .5032 12005  |
| .5683  | .9999 96884  | .0024 96324  | .2950 42337  | .5034 41497  |
| .5684  | .9999 97129  | .0023 96325  | .2952 92692  | .5036 71013  |
| 1.5685 | 0.9999 97363 | 0.0022 96325 | 2.2955 43071 | 2.5039 00555 |
| .5686  | .9999 97588  | .0021 96325  | .2957 93473  | .5041 30122  |
| .5687  | .9999 97803  | .0020 96325  | .2960 43897  | .5043 59714  |
| .5688  | .9999 98007  | .0019 96325  | .2962 94344  | .5045 89331  |
| .5689  | .9999 98202  | .0018 96326  | .2965 44815  | .5048 18973  |
| 1.5690 | 0.9999 98387 | 0.0017 96326 | 2.2967 95308 | 2.5050 48640 |
| .5691  | .9999 98561  | .0016 96326  | .2970 45825  | .5052 78332  |
| .5692  | .9999 98726  | .0015 96326  | .2972 96364  | .5055 08049  |
| .5693  | .9999 98881  | .0014 96326  | .2975 46926  | .5057 37791  |
| .5694  | .9999 99025  | .0013 96326  | .2977 97511  | .5059 67558  |
| 1.5695 | 0.9999 99160 | 0.0012 96326 | 2.2980 48120 | 2.5061 97351 |
| .5696  | .9999 99284  | .0011 96327  | .2982 98751  | .5064 27168  |
| .5697  | .9999 99399  | .0010 96327  | .2985 49405  | .5066 57010  |
| .5698  | .9999 99504  | .0009 96327  | .2988 00082  | .5068 86878  |
| .5699  | .9999 99598  | .0008 96327  | .2990 50783  | .5071 16770  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.5700 | 0.9999 99683 | 0.0007 96327  | 2.2993 01506 | 2.5073 46688 |
| .5701  | .9999 99758  | .0006 96327   | .2995 52252  | .5075 76631  |
| .5702  | .9999 99822  | .0005 96327   | .2998 03021  | .5078 06599  |
| .5703  | .9999 99877  | .0004 96327   | .3000 53813  | .5080 36591  |
| .5704  | .9999 99921  | .0003 96327   | .3003 04628  | .5082 66609  |
| 1.5705 | 0.9999 99956 | 0.0002 96327  | 2.3005 55467 | 2.5084 96652 |
| .5706  | .9999 99981  | .0001 96327   | .3008 06328  | .5087 26720  |
| .5707  | .9999 99995  | +0.0000 96327 | .3010 57212  | .5089 56814  |
| .5708  | 1.0000 00000 | -0.0000 03673 | .3013 08119  | .5091 86932  |
| .5709  | 0.9999 99995 | .0001 03673   | .3015 59049  | .5094 17075  |
| 1.5710 | 0.9999 99979 | -0.0002 03673 | 2.3018 10002 | 2.5096 47244 |
| .5711  | .9999 99954  | .0003 03673   | .3020 60979  | .5098 77437  |
| .5712  | .9999 99919  | .0004 03673   | .3023 11978  | .5101 07656  |
| .5713  | .9999 99873  | .0005 03673   | .3025 63000  | .5103 37900  |
| .5714  | .9999 99818  | .0006 03673   | .3028 14046  | .5105 68168  |
| 1.5715 | 0.9999 99752 | -0.0007 03673 | 2.3030 65114 | 2.5107 98462 |
| .5716  | .9999 99677  | .0008 03673   | .3033 16205  | .5110 28781  |
| .5717  | .9999 99592  | .0009 03673   | .3035 67320  | .5112 59126  |
| .5718  | .9999 99496  | .0010 03673   | .3038 18457  | .5114 89495  |
| .5719  | .9999 99391  | .0011 03673   | .3040 69618  | .5117 19899  |
| 1.5720 | 0.9999 99276 | -0.0012 03673 | 2.3043 20801 | 2.5119 50309 |
| .5721  | .9999 99150  | .0013 03673   | .3045 72008  | .5121 80753  |
| .5722  | .9999 99015  | .0014 03673   | .3048 23237  | .5124 11223  |
| .5723  | .9999 98869  | .0015 03673   | .3050 74490  | .5126 41718  |
| .5724  | .9999 98714  | .0016 03673   | .3053 25766  | .5128 72238  |
| 1.5725 | 0.9999 98549 | -0.0017 03672 | 2.3055 77064 | 2.5131 02783 |
| .5726  | .9999 98373  | .0018 03672   | .3058 28386  | .5133 33354  |
| .5727  | .9999 98188  | .0019 03672   | .3060 79731  | .5135 63949  |
| .5728  | .9999 97993  | .0020 03672   | .3063 31099  | .5137 94569  |
| .5729  | .9999 97787  | .0021 03672   | .3065 82490  | .5140 25215  |
| 1.5730 | 0.9999 97572 | -0.0022 03671 | 2.3068 33904 | 2.5142 55886 |
| .5731  | .9999 97347  | .0023 03671   | .3070 85341  | .5144 86582  |
| .5732  | .9999 97111  | .0024 03671   | .3073 36801  | .5147 17303  |
| .5733  | .9999 96866  | .0025 03671   | .3075 88285  | .5149 48049  |
| .5734  | .9999 96610  | .0026 03670   | .3078 39791  | .5151 78821  |
| 1.5735 | 0.9999 96345 | -0.0027 03670 | 2.3080 91320 | 2.5154 09617 |
| .5736  | .9999 96070  | .0028 03670   | .3083 42873  | .5156 40439  |
| .5737  | .9999 95784  | .0029 03669   | .3085 94448  | .5158 71286  |
| .5738  | .9999 95489  | .0030 03669   | .3088 46047  | .5161 02158  |
| .5739  | .9999 95184  | .0031 03668   | .3090 97669  | .5163 33055  |
| 1.5740 | 0.9999 94868 | -0.0032 03668 | 2.3093 49314 | 2.5165 63977 |
| .5741  | .9999 94543  | .0033 03667   | .3096 00982  | .5167 94925  |
| .5742  | .9999 94208  | .0034 03667   | .3098 52673  | .5170 25898  |
| .5743  | .9999 93862  | .0035 03666   | .3101 04387  | .5172 56895  |
| .5744  | .9999 93507  | .0036 03665   | .3103 56124  | .5174 87918  |
| 1.5745 | 0.9999 93141 | -0.0037 03665 | 2.3106 07884 | 2.5177 18967 |
| .5746  | .9999 92766  | .0038 03664   | .3108 59668  | .5179 50040  |
| .5747  | .9999 92381  | .0039 03663   | .3111 11474  | .5181 81139  |
| .5748  | .9999 91985  | .0040 03663   | .3113 63304  | .5184 12262  |
| .5749  | .9999 91580  | .0041 03662   | .3116 15157  | .5186 43411  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.5750 | 0.9999 91165 | -0.0042 03661 | 2.3118 67033 | 2.5188 74585 |
| .5751  | .9999 90739  | .0043 03660   | .3121 18932  | .5191 05785  |
| .5752  | .9999 90304  | .0044 03659   | .3123 70854  | .5193 37009  |
| .5753  | .9999 89858  | .0045 03658   | .3126 22799  | .5195 68259  |
| .5754  | .9999 89403  | .0046 03657   | .3128 74768  | .5197 99534  |
| 1.5755 | 0.9999 88938 | -0.0047 03656 | 2.3131 26759 | 2.5200 30834 |
| .5756  | .9999 88462  | .0048 03655   | .3133 78774  | .5202 62159  |
| .5757  | .9999 87977  | .0049 03654   | .3136 30811  | .5204 93510  |
| .5758  | .9999 87482  | .0050 03652   | .3138 82872  | .5207 24885  |
| .5759  | .9999 86976  | .0051 03651   | .3141 34956  | .5209 56286  |
| 1.5760 | 0.9999 86461 | -0.0052 03650 | 2.3143 87064 | 2.5211 87712 |
| .5761  | .9999 85936  | .0053 03648   | .3146 39194  | .5214 19164  |
| .5762  | .9999 85400  | .0054 03647   | .3148 91347  | .5216 50640  |
| .5763  | .9999 84855  | .0055 03645   | .3151 43524  | .5218 82142  |
| .5764  | .9999 84299  | .0056 03644   | .3153 95724  | .5221 13669  |
| 1.5765 | 0.9999 83734 | -0.0057 03642 | 2.3156 47947 | 2.5223 45221 |
| .5766  | .9999 83159  | .0058 03641   | .3159 00193  | .5225 76798  |
| .5767  | .9999 82573  | .0059 03639   | .3161 52462  | .5228 08401  |
| .5768  | .9999 81978  | .0060 03637   | .3164 04755  | .5230 40029  |
| .5769  | .9999 81373  | .0061 03635   | .3166 57070  | .5232 71682  |
| 1.5770 | 0.9999 80757 | -0.0062 03633 | 2.3169 09409 | 2.5235 03360 |
| .5771  | .9999 80132  | .0063 03631   | .3171 61771  | .5237 35084  |
| .5772  | .9999 79497  | .0064 03629   | .3174 14156  | .5239 66793  |
| .5773  | .9999 78851  | .0065 03627   | .3176 66564  | .5241 98547  |
| .5774  | .9999 78196  | .0066 03625   | .3179 18996  | .5244 30326  |
| 1.5775 | 0.9999 77530 | -0.0067 03623 | 2.3181 71450 | 2.5246 62130 |
| .5776  | .9999 76855  | .0068 03621   | .3184 23928  | .5248 93960  |
| .5777  | .9999 76170  | .0069 03618   | .3186 76429  | .5251 25815  |
| .5778  | .9999 75474  | .0070 03616   | .3189 28953  | .5253 57696  |
| .5779  | .9999 74769  | .0071 03613   | .3191 81501  | .5255 89601  |
| 1.5780 | 0.9999 74054 | -0.0072 03611 | 2.3194 34071 | 2.5258 21532 |
| .5781  | .9999 73328  | .0073 03608   | .3196 86665  | .5260 53488  |
| .5782  | .9999 72593  | .0074 03606   | .3199 39282  | .5262 85469  |
| .5783  | .9999 71848  | .0075 03603   | .3201 91922  | .5265 17476  |
| .5784  | .9999 71092  | .0076 03600   | .3204 44585  | .5267 49508  |
| 1.5785 | 0.9999 70327 | -0.0077 03597 | 2.3206 97272 | 2.5269 81565 |
| .5786  | .9999 69551  | .0078 03594   | .3209 49982  | .5272 13647  |
| .5787  | .9999 68766  | .0079 03591   | .3212 02715  | .5274 45755  |
| .5788  | .9999 67971  | .0080 03588   | .3214 55471  | .5276 77888  |
| .5789  | .9999 67165  | .0081 03585   | .3217 08250  | .5279 10046  |
| 1.5790 | 0.9999 66350 | -0.0082 03581 | 2.3219 61053 | 2.5281 42229 |
| .5791  | .9999 65525  | .0083 03578   | .3222 13879  | .5283 74438  |
| .5792  | .9999 64689  | .0084 03574   | .3224 66728  | .5286 06672  |
| .5793  | .9999 63844  | .0085 03571   | .3227 19600  | .5288 38931  |
| .5794  | .9999 62989  | .0086 03567   | .3229 72496  | .5290 71216  |
| 1.5795 | 0.9999 62123 | -0.0087 03563 | 2.3232 25414 | 2.5293 03526 |
| .5796  | .9999 61248  | .0088 03559   | .3234 78356  | .5295 35861  |
| .5797  | .9999 60363  | .0089 03556   | .3237 31321  | .5297 68221  |
| .5798  | .9999 59467  | .0090 03552   | .3239 84310  | .5300 00607  |
| .5799  | .9999 58562  | .0091 03547   | .3242 37322  | .5302 33018  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.5800 | 0.9999 57646 | -0.0092 03543 | 2.3244 20357 | 2.5304 25455 |
| .5801  | .9999 56721  | .0093 03539   | .3247 43415  | .5308 27916  |
| .5802  | .9999 55786  | .0094 03535   | .3249 96496  | .5309 30403  |
| .5803  | .9999 54840  | .0095 03530   | .3252 49601  | .5311 32916  |
| .5804  | .9999 53885  | .0096 03526   | .3255 02729  | .5313 35453  |
| 1.5805 | 0.9999 52920 | -0.0097 03521 | 2.3257 55820 | 2.5316 28016 |
| .5806  | .9999 51944  | .0098 03516   | .3260 09054  | .5318 30605  |
| .5807  | .9999 50959  | .0099 03511   | .3262 62252  | .5320 33218  |
| .5808  | .9999 49964  | .0100 03506   | .3265 15473  | .5323 25857  |
| .5809  | .9999 48958  | .0101 03501   | .3267 68717  | .5325 28521  |
| 1.5810 | 0.9999 47943 | -0.0102 03496 | 2.3270 21985 | 2.5327 31211 |
| .5811  | .9999 46918  | .0103 03491   | .3272 75275  | .5330 23926  |
| .5812  | .9999 45882  | .0104 03486   | .3275 28589  | .5332 26666  |
| .5813  | .9999 44837  | .0105 03480   | .3277 81927  | .5334 29431  |
| .5814  | .9999 43782  | .0106 03474   | .3280 35287  | .5337 22222  |
| 1.5815 | 0.9999 42716 | -0.0107 03469 | 2.3282 88671 | 2.5339 25038 |
| .5816  | .9999 41641  | .0108 03463   | .3285 42078  | .5341 27880  |
| .5817  | .9999 40556  | .0109 03457   | .3287 95509  | .5344 20747  |
| .5818  | .9999 39460  | .0110 03451   | .3290 48962  | .5346 23639  |
| .5819  | .9999 38355  | .0111 03445   | .3293 02439  | .5348 26557  |
| 1.5820 | 0.9999 37240 | -0.0112 03439 | 2.3295 55940 | 2.5351 19499 |
| .5821  | .9999 36114  | .0113 03432   | .3298 09463  | .5353 22462  |
| .5822  | .9999 34979  | .0114 03426   | .3300 63010  | .5355 25461  |
| .5823  | .9999 33833  | .0115 03419   | .3303 16580  | .5358 28480  |
| .5824  | .9999 32678  | .0116 03413   | .3305 70174  | .5360 31525  |
| 1.5825 | 0.9999 31513 | -0.0117 03406 | 2.3308 23791 | 2.5362 34594 |
| .5826  | .9999 30337  | .0118 03399   | .3310 77431  | .5365 27689  |
| .5827  | .9999 29152  | .0119 03392   | .3313 31094  | .5367 30810  |
| .5828  | .9999 27957  | .0120 03385   | .3315 84781  | .5369 33956  |
| .5829  | .9999 26751  | .0121 03378   | .3318 38491  | .5372 37127  |
| 1.5830 | 0.9999 25536 | -0.0122 03370 | 2.3320 92224 | 2.5374 50323 |
| .5831  | .9999 24311  | .0123 03363   | .3323 45981  | .5376 53545  |
| .5832  | .9999 23075  | .0124 03355   | .3325 99761  | .5379 56793  |
| .5833  | .9999 21830  | .0125 03347   | .3328 53565  | .5381 50065  |
| .5834  | .9999 20575  | .0126 03340   | .3331 07391  | .5383 53363  |
| 1.5835 | 0.9999 19309 | -0.0127 03332 | 2.3333 61241 | 2.5386 16687 |
| .5836  | .9999 18034  | .0128 03323   | .3336 15115  | .5388 50036  |
| .5837  | .9999 16749  | .0129 03315   | .3338 69011  | .5390 83410  |
| .5838  | .9999 15453  | .0130 03307   | .3341 22931  | .5393 16809  |
| .5839  | .9999 14148  | .0131 03298   | .3343 76875  | .5395 50234  |
| 1.5840 | 0.9999 12833 | -0.0132 03290 | 2.3346 30841 | 2.5397 83685 |
| .5841  | .9999 11507  | .0133 03281   | .3348 84831  | .5400 17160  |
| .5842  | .9999 10172  | .0134 03272   | .3351 38845  | .5402 50662  |
| .5843  | .9999 08827  | .0135 03263   | .3353 92881  | .5404 84188  |
| .5844  | .9999 07471  | .0136 03254   | .3356 46942  | .5407 17740  |
| 1.5845 | 0.9999 06106 | -0.0137 03244 | 2.3359 01025 | 2.5409 51318 |
| .5846  | .9999 04731  | .0138 03235   | .3361 55132  | .5411 84920  |
| .5847  | .9999 03345  | .0139 03225   | .3364 09262  | .5414 18549  |
| .5848  | .9999 01950  | .0140 03216   | .3366 63416  | .5416 52202  |
| .5849  | .9999 00545  | .0141 03206   | .3369 17592  | .5418 85881  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.5850 | 0.9998 99130 | -0.0142 03196 | 2.3371 71793 | 2.5421 19586 |
| .5851  | .9998 97704  | .0143 03185   | .3374 26016  | .5423 53316  |
| .5852  | .9998 96269  | .0144 03175   | .3376 80263  | .5425 87071  |
| .5853  | .9998 94824  | .0145 03165   | .3379 34534  | .5428 20852  |
| .5854  | .9998 93368  | .0146 03154   | .3381 88828  | .5430 54658  |
| 1.5855 | 0.9998 91903 | -0.0147 03143 | 2.3384 43145 | 2.5432 88490 |
| .5856  | .9998 90428  | .0148 03133   | .3386 97485  | .5435 22347  |
| .5857  | .9998 88942  | .0149 03121   | .3389 51849  | .5437 56229  |
| .5858  | .9998 87447  | .0150 03110   | .3392 06236  | .5439 90137  |
| .5859  | .9998 85942  | .0151 03099   | .3394 60647  | .5442 24070  |
| 1.5860 | 0.9998 84426 | -0.0152 03087 | 2.3397 15081 | 2.5444 58029 |
| .5861  | .9998 82901  | .0153 03076   | .3399 69539  | .5446 92013  |
| .5862  | .9998 81366  | .0154 03064   | .3402 24020  | .5449 26023  |
| .5863  | .9998 79820  | .0155 03052   | .3404 78524  | .5451 60058  |
| .5864  | .9998 78265  | .0156 03040   | .3407 33052  | .5453 94119  |
| 1.5865 | 0.9998 76700 | -0.0157 03028 | 2.3409 87603 | 2.5456 28205 |
| .5866  | .9998 75125  | .0158 03015   | .3412 42177  | .5458 62316  |
| .5867  | .9998 73539  | .0159 03003   | .3414 96775  | .5460 96453  |
| .5868  | .9998 71944  | .0160 02990   | .3417 51397  | .5463 30616  |
| .5869  | .9998 70339  | .0161 02977   | .3420 06041  | .5465 64803  |
| 1.5870 | 0.9998 68723 | -0.0162 02964 | 2.3422 60710 | 2.5467 99017 |
| .5871  | .9998 67098  | .0163 02951   | .3425 15401  | .5470 33256  |
| .5872  | .9998 65463  | .0164 02938   | .3427 70116  | .5472 67520  |
| .5873  | .9998 63817  | .0165 02924   | .3430 24855  | .5475 01810  |
| .5874  | .9998 62162  | .0166 02910   | .3432 79617  | .5477 36125  |
| 1.5875 | 0.9998 60497 | -0.0167 02896 | 2.3435 34402 | 2.5479 70466 |
| .5876  | .9998 58822  | .0168 02882   | .3437 89211  | .5482 04832  |
| .5877  | .9998 57136  | .0169 02868   | .3440 44043  | .5484 39223  |
| .5878  | .9998 55441  | .0170 02854   | .3442 98899  | .5486 73641  |
| .5879  | .9998 53736  | .0171 02839   | .3445 53778  | .5489 08083  |
| 1.5880 | 0.9998 52020 | -0.0172 02825 | 2.3448 08680 | 2.5491 42551 |
| .5881  | .9998 50295  | .0173 02810   | .3450 63606  | .5493 77045  |
| .5882  | .9998 48560  | .0174 02795   | .3453 18556  | .5496 11564  |
| .5883  | .9998 46815  | .0175 02779   | .3455 73528  | .5498 46109  |
| .5884  | .9998 45059  | .0176 02764   | .3458 28525  | .5500 80679  |
| 1.5885 | 0.9998 43294 | -0.0177 02748 | 2.3460 83545 | 2.5503 15274 |
| .5886  | .9998 41519  | .0178 02733   | .3463 38588  | .5505 49895  |
| .5887  | .9998 39734  | .0179 02717   | .3465 93655  | .5507 84542  |
| .5888  | .9998 37938  | .0180 02701   | .3468 48745  | .5510 19214  |
| .5889  | .9998 36133  | .0181 02684   | .3471 03858  | .5512 53912  |
| 1.5890 | 0.9998 34318 | -0.0182 02668 | 2.3473 58996 | 2.5514 88635 |
| .5891  | .9998 32492  | .0183 02651   | .3476 14156  | .5517 23384  |
| .5892  | .9998 30657  | .0184 02634   | .3478 69340  | .5519 58158  |
| .5893  | .9998 28812  | .0185 02617   | .3481 24548  | .5521 92957  |
| .5894  | .9998 26957  | .0186 02600   | .3483 79779  | .5524 27783  |
| 1.5895 | 0.9998 25091 | -0.0187 02583 | 2.3486 35033 | 2.5526 62633 |
| .5896  | .9998 23216  | .0188 02565   | .3488 90311  | .5528 97510  |
| .5897  | .9998 21331  | .0189 02547   | .3491 45613  | .5531 32411  |
| .5898  | .9998 19436  | .0190 02529   | .3494 00938  | .5533 67339  |
| .5899  | .9998 17530  | .0191 02511   | .3496 56286  | .5536 02292  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.5900 | 0.9998 15615 | -0.0192 02493 | 2.3499 11658 | 2.5538 37270 |
| .5901  | .9998 13690  | .0193 02474   | .3501 27054  | .5540 72274  |
| .5902  | .9998 11755  | .0194 02456   | .3504 22473  | .5543 07303  |
| .5903  | .9998 09309  | .0195 02437   | .3506 77915  | .5545 42358  |
| .5904  | .9998 07854  | .0196 02418   | .3509 33381  | .5547 77439  |
| 1.5905 | 0.9998 05889 | -0.0197 02398 | 2.3511 88871 | 2.5550 12545 |
| .5906  | .9998 03914  | .0198 02379   | .3514 44384  | .5552 47677  |
| .5907  | .9998 01928  | .0199 02359   | .3516 99920  | .5554 82834  |
| .5908  | .9997 99933  | .0200 02339   | .3519 55480  | .5557 18017  |
| .5909  | .9997 97928  | .0201 02319   | .3522 11064  | .5559 53225  |
| 1.5910 | 0.9997 95913 | -0.0202 02299 | 2.3524 66671 | 2.5561 88459 |
| .5911  | .9997 93888  | .0203 02278   | .3527 22302  | .5564 23718  |
| .5912  | .9997 91852  | .0204 02258   | .3529 77956  | .5566 59003  |
| .5913  | .9997 89807  | .0205 02237   | .3532 33633  | .5568 94314  |
| .5914  | .9997 87752  | .0206 02215   | .3534 89335  | .5571 29650  |
| 1.5915 | 0.9997 85687 | -0.0207 02194 | 2.3537 45059 | 2.5573 65012 |
| .5916  | .9997 83611  | .0208 02173   | .3540 00808  | .5576 00399  |
| .5917  | .9997 81526  | .0209 02151   | .3542 56579  | .5578 35812  |
| .5918  | .9997 79431  | .0210 02129   | .3545 12375  | .5580 71251  |
| .5919  | .9997 77326  | .0211 02107   | .3547 68194  | .5583 06715  |
| 1.5920 | 0.9997 75211 | -0.0212 02084 | 2.3550 24036 | 2.5585 42204 |
| .5921  | .9997 73085  | .0213 02062   | .3552 79902  | .5587 77719  |
| .5922  | .9997 70950  | .0214 02039   | .3555 35792  | .5590 13260  |
| .5923  | .9997 68805  | .0215 02016   | .3557 91705  | .5592 48827  |
| .5924  | .9997 66650  | .0216 01993   | .3560 47641  | .5594 84418  |
| 1.5925 | 0.9997 64485 | -0.0217 01969 | 2.3563 03602 | 2.5597 20036 |
| .5926  | .9997 62309  | .0218 01946   | .3565 59585  | .5599 55679  |
| .5927  | .9997 60124  | .0219 01922   | .3568 15593  | .5601 91348  |
| .5928  | .9997 57929  | .0220 01898   | .3570 71624  | .5604 27042  |
| .5929  | .9997 55724  | .0221 01873   | .3573 27678  | .5606 62762  |
| 1.5930 | 0.9997 53509 | -0.0222 01849 | 2.3575 83756 | 2.5608 98508 |
| .5931  | .9997 51283  | .0223 01824   | .3578 39858  | .5611 34279  |
| .5932  | .9997 49048  | .0224 01799   | .3580 95983  | .5613 70076  |
| .5933  | .9997 46803  | .0225 01774   | .3583 52132  | .5616 05898  |
| .5934  | .9997 44548  | .0226 01748   | .3586 08304  | .5618 41746  |
| 1.5935 | 0.9997 42283 | -0.0227 01723 | 2.3588 64500 | 2.5620 77620 |
| .5936  | .9997 40008  | .0228 01697   | .3591 20720  | .5623 13519  |
| .5937  | .9997 37722  | .0229 01671   | .3593 76963  | .5625 49444  |
| .5938  | .9997 35427  | .0230 01644   | .3596 33230  | .5627 85395  |
| .5939  | .9997 33122  | .0231 01618   | .3598 89520  | .5630 21371  |
| 1.5940 | 0.9997 30807 | -0.0232 01591 | 2.3601 45834 | 2.5632 57372 |
| .5941  | .9997 28482  | .0233 01564   | .3604 02171  | .5634 93400  |
| .5942  | .9997 26147  | .0234 01537   | .3606 58533  | .5637 29453  |
| .5943  | .9997 23801  | .0235 01509   | .3609 14917  | .5639 65532  |
| .5944  | .9997 21446  | .0236 01482   | .3611 71326  | .5642 01636  |
| 1.5945 | 0.9997 19081 | -0.0237 01454 | 2.3614 27758 | 2.5644 37766 |
| .5946  | .9997 16706  | .0238 01425   | .3616 84213  | .5646 73921  |
| .5947  | .9997 14321  | .0239 01397   | .3619 40692  | .5649 10103  |
| .5948  | .9997 11926  | .0240 01368   | .3621 97195  | .5651 46310  |
| .5949  | .9997 09521  | .0241 01339   | .3624 53722  | .5653 82542  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.5950 | 0.9997 07105 | -0.0242 01310 | 2.3627 10272 | 2.5656 18800 |
| .5951  | .9997 04680  | .0243 01281   | .3629 66846  | .5658 55084  |
| .5952  | .9997 02245  | .0244 01251   | .3632 23443  | .5660 91394  |
| .5953  | .9996 99800  | .0245 01221   | .3634 80064  | .5663 27729  |
| .5954  | .9996 97345  | .0246 01191   | .3637 36708  | .5665 64090  |
| 1.5955 | 0.9996 94880 | -0.0247 01161 | 2.3639 93377 | 2.5668 00476 |
| .5956  | .9996 92405  | .0248 01130   | .3642 50068  | .5670 36888  |
| .5957  | .9996 89920  | .0249 01099   | .3645 06784  | .5672 73326  |
| .5958  | .9996 87424  | .0250 01068   | .3647 63523  | .5675 09790  |
| .5959  | .9996 84919  | .0251 01037   | .3650 20286  | .5677 46279  |
| 1.5960 | 0.9996 82404 | -0.0252 01005 | 2.3652 77072 | 2.5679 82794 |
| .5961  | .9996 79879  | .0253 00973   | .3655 33882  | .5682 19334  |
| .5962  | .9996 77344  | .0254 00941   | .3657 90716  | .5684 55901  |
| .5963  | .9996 74799  | .0255 00909   | .3660 47574  | .5686 92492  |
| .5964  | .9996 72244  | .0256 00876   | .3663 04455  | .5689 29110  |
| 1.5965 | 0.9996 69679 | -0.0257 00843 | 2.3665 61360 | 2.5691 65753 |
| .5966  | .9996 67104  | .0258 00810   | .3668 18288  | .5694 02422  |
| .5967  | .9996 64519  | .0259 00776   | .3670 75240  | .5696 39117  |
| .5968  | .9996 61924  | .0260 00743   | .3673 32216  | .5698 75837  |
| .5969  | .9996 59318  | .0261 00709   | .3675 89215  | .5701 12583  |
| 1.5970 | 0.9996 56703 | -0.0262 00675 | 2.3678 46238 | 2.5703 49355 |
| .5971  | .9996 54078  | .0263 00640   | .3681 03285  | .5705 86153  |
| .5972  | .9996 51443  | .0264 00605   | .3683 60355  | .5708 22976  |
| .5973  | .9996 48798  | .0265 00570   | .3686 17450  | .5710 59825  |
| .5974  | .9996 46143  | .0266 00535   | .3688 74567  | .5712 96699  |
| 1.5975 | 0.9996 43478 | -0.0267 00500 | 2.3691 31709 | 2.5715 33600 |
| .5976  | .9996 40803  | .0268 00464   | .3693 88874  | .5717 70526  |
| .5977  | .9996 38118  | .0269 00428   | .3696 46063  | .5720 07477  |
| .5978  | .9996 35423  | .0270 00391   | .3699 03276  | .5722 44455  |
| .5979  | .9996 32718  | .0271 00355   | .3701 60512  | .5724 81458  |
| 1.5980 | 0.9996 30003 | -0.0272 00318 | 2.3704 17772 | 2.5727 18487 |
| .5981  | .9996 27278  | .0273 00281   | .3706 75056  | .5729 55542  |
| .5982  | .9996 24543  | .0274 00243   | .3709 32363  | .5731 92622  |
| .5983  | .9996 21798  | .0275 00206   | .3711 89694  | .5734 29728  |
| .5984  | .9996 19043  | .0276 00168   | .3714 47049  | .5736 66860  |
| 1.5985 | 0.9996 16278 | -0.0277 00130 | 2.3717 04428 | 2.5739 04018 |
| .5986  | .9996 13503  | .0278 00091   | .3719 61830  | .5741 41201  |
| .5987  | .9996 10718  | .0279 00052   | .3722 19256  | .5743 78410  |
| .5988  | .9996 07923  | .0280 00013   | .3724 76706  | .5746 15645  |
| .5989  | .9996 05118  | .0280 99974   | .3727 34179  | .5748 52905  |
| 1.5990 | 0.9996 02303 | -0.0281 99934 | 2.3729 91676 | 2.5750 90192 |
| .5991  | .9995 99478  | .0282 99894   | .3732 49197  | .5753 27504  |
| .5992  | .9995 96643  | .0283 99854   | .3735 06742  | .5755 64841  |
| .5993  | .9995 93798  | .0284 99814   | .3737 64310  | .5758 02205  |
| .5994  | .9995 90943  | .0285 99773   | .3740 21902  | .5760 39594  |
| 1.5995 | 0.9995 88078 | -0.0286 99732 | 2.3742 79518 | 2.5762 77009 |
| .5996  | .9995 85203  | .0287 99691   | .3745 37157  | .5765 14450  |
| .5997  | .9995 82318  | .0288 99649   | .3747 94821  | .5767 51917  |
| .5998  | .9995 79423  | .0289 99607   | .3750 52508  | .5769 89409  |
| .5999  | .9995 76518  | .0290 99565   | .3753 10219  | .5772 26927  |

| $x$    | $\sin x$     | $\cos x$      | $\sinh x$    | $\cosh x$    |
|--------|--------------|---------------|--------------|--------------|
| 1.6000 | 0.9995 73603 | -0.0291 99522 | 2.3755 67953 | 2.5774 64471 |
| .6001  | .9995 70678  | .0292 99480   | .3758 25712  | .5777 02041  |
| .6002  | .9995 67743  | .0293 99436   | .3760 83494  | .5779 39636  |
| .6003  | .9995 64798  | .0294 99393   | .3763 41299  | .5781 77258  |
| .6004  | .9995 61843  | .0295 99349   | .3765 99129  | .5784 14905  |
| 1.6005 | 0.9995 58878 | -0.0296 99305 | 2.3768 56982 | 2.5786 52577 |
| .6006  | .9995 55903  | .0297 99261   | .3771 14860  | .5788 90276  |
| .6007  | .9995 52918  | .0298 99217   | .3773 72760  | .5791 28000  |
| .6008  | .9995 49924  | .0299 99172   | .3776 30685  | .5793 65751  |
| .6009  | .9995 46919  | .0300 99127   | .3778 88634  | .5796 03527  |
| 1.6010 | 0.9995 43904 | -0.0301 99081 | 2.3781 46606 | 2.5798 41328 |
| .6011  | .9995 40879  | .0302 99035   | .3784 04602  | .5800 79156  |
| .6012  | .9995 37844  | .0303 98989   | .3786 62622  | .5803 17009  |
| .6013  | .9995 34799  | .0304 98943   | .3789 20665  | .5805 54888  |
| .6014  | .9995 31744  | .0305 98896   | .3791 78733  | .5807 92793  |
| 1.6015 | 0.9995 28679 | -0.0306 98849 | 2.3794 36824 | 2.5810 30724 |
| .6016  | .9995 25604  | .0307 98802   | .3796 94939  | .5812 68681  |
| .6017  | .9995 22519  | .0308 98754   | .3799 53078  | .5815 06663  |
| .6018  | .9995 19425  | .0309 98707   | .3802 11240  | .5817 44671  |
| .6019  | .9995 16320  | .0310 98658   | .3804 69427  | .5819 82705  |
| 1.6020 | 0.9995 13205 | -0.0311 98610 | 2.3807 27637 | 2.5822 20765 |
| .6021  | .9995 10080  | .0312 98561   | .3809 85871  | .5824 58851  |
| .6022  | .9995 06945  | .0313 98512   | .3812 44128  | .5826 96962  |
| .6023  | .9995 03800  | .0314 98462   | .3815 02410  | .5829 35100  |
| .6024  | .9995 00645  | .0315 98413   | .3817 60716  | .5831 73263  |
| 1.6025 | 0.9994 97481 | -0.0316 98362 | 2.3820 19045 | 2.5834 11452 |
| .6026  | .9994 94306  | .0317 98312   | .3822 77398  | .5836 49667  |
| .6027  | .9994 91121  | .0318 98261   | .3825 35775  | .5838 87907  |
| .6028  | .9994 87926  | .0319 98210   | .3827 94175  | .5841 26174  |
| .6029  | .9994 84721  | .0320 98159   | .3830 52600  | .5843 64466  |
| 1.6030 | 0.9994 81507 | -0.0321 98107 | 2.3833 11048 | 2.5846 02784 |
| .6031  | .9994 78282  | .0322 98055   | .3835 69520  | .5848 41128  |
| .6032  | .9994 75047  | .0323 98003   | .3838 28017  | .5850 79498  |
| .6033  | .9994 71802  | .0324 97950   | .3840 86536  | .5853 17894  |
| .6034  | .9994 68547  | .0325 97897   | .3843 45080  | .5855 56316  |
| 1.6035 | 0.9994 65283 | -0.0326 97844 | 2.3846 03648 | 2.5857 94763 |
| .6036  | .9994 62008  | .0327 97790   | .3848 62239  | .5860 33236  |
| .6037  | .9994 58723  | .0328 97736   | .3851 20854  | .5862 71735  |
| .6038  | .9994 55428  | .0329 97682   | .3853 79493  | .5865 10260  |
| .6039  | .9994 52123  | .0330 97627   | .3856 38156  | .5867 48811  |
| 1.6040 | 0.9994 48809 | -0.0331 97572 | 2.3858 96843 | 2.5869 87388 |
| .6041  | .9994 45484  | .0332 97517   | .3861 55554  | .5872 25991  |
| .6042  | .9994 42149  | .0333 97462   | .3864 14288  | .5874 64619  |
| .6043  | .9994 38804  | .0334 97406   | .3866 73047  | .5877 03274  |
| .6044  | .9994 35450  | .0335 97349   | .3869 31829  | .5879 41954  |
| 1.6045 | 0.9994 32085 | -0.0336 97293 | 2.3871 90635 | 2.5881 80660 |
| .6046  | .9994 28710  | .0337 97236   | .3874 49465  | .5884 19392  |
| .6047  | .9994 25326  | .0338 97178   | .3877 08319  | .5886 58150  |
| .6048  | .9994 21931  | .0339 97121   | .3879 67197  | .5888 96934  |
| .6049  | .9994 18526  | .0340 97063   | .3882 26098  | .5891 35743  |



| $x$    | $\sin x$     | $\cos x$      | $\sinh x$    | $\cosh x$    |
|--------|--------------|---------------|--------------|--------------|
| 1.6050 | 0.9994 15111 | -0.0341 97004 | 2.3884 85024 | 2.5893 74579 |
| .6051  | .9994 11687  | .0342 96946   | .3887 43973  | .5896 13440  |
| .6052  | .9994 08252  | .0343 96887   | .3890 02947  | .5898 52328  |
| .6053  | .9994 04807  | .0344 96827   | .3892 61944  | .5900 91241  |
| .6054  | .9994 01353  | .0345 96768   | .3895 20965  | .5903 30180  |
| 1.6055 | 0.9993 97888 | -0.0346 96708 | 2.3897 80010 | 2.5905 69145 |
| .6056  | .9993 94413  | .0347 96647   | .3900 39079  | .5908 08136  |
| .6057  | .9993 90929  | .0348 96587   | .3902 98171  | .5910 47153  |
| .6058  | .9993 87434  | .0349 96526   | .3905 57288  | .5912 86196  |
| .6059  | .9993 83929  | .0350 96464   | .3908 16429  | .5915 25264  |
| 1.6060 | 0.9993 80415 | -0.0351 96402 | 2.3910 75593 | 2.5917 64359 |
| .6061  | .9993 76890  | .0352 96340   | .3913 34782  | .5920 03479  |
| .6062  | .9993 73355  | .0353 96278   | .3915 93994  | .5922 42626  |
| .6063  | .9993 69811  | .0354 96215   | .3918 53230  | .5924 81798  |
| .6064  | .9993 66256  | .0355 96152   | .3921 12490  | .5927 20997  |
| 1.6065 | 0.9993 62692 | -0.0356 96088 | 2.3923 71774 | 2.5929 60221 |
| .6066  | .9993 59117  | .0357 96024   | .3926 31082  | .5931 99471  |
| .6067  | .9993 55532  | .0358 95960   | .3928 90414  | .5934 38747  |
| .6068  | .9993 51938  | .0359 95895   | .3931 49770  | .5936 78049  |
| .6069  | .9993 48333  | .0360 95830   | .3934 09150  | .5939 17377  |
| 1.6070 | 0.9993 44719 | -0.0361 95765 | 2.3936 68553 | 2.5941 56731 |
| .6071  | .9993 41094  | .0362 95699   | .3939 27981  | .5943 96111  |
| .6072  | .9993 37459  | .0363 95633   | .3941 87433  | .5946 35516  |
| .6073  | .9993 33815  | .0364 95567   | .3944 46908  | .5948 74948  |
| .6074  | .9993 30160  | .0365 95500   | .3947 06408  | .5951 14406  |
| 1.6075 | 0.9993 26496 | -0.0366 95433 | 2.3949 65931 | 2.5953 53889 |
| .6076  | .9993 22821  | .0367 95365   | .3952 25478  | .5955 93399  |
| .6077  | .9993 19137  | .0368 95297   | .3954 85050  | .5958 32935  |
| .6078  | .9993 15442  | .0369 95229   | .3957 44645  | .5960 72496  |
| .6079  | .9993 11738  | .0370 95160   | .3960 04264  | .5963 12083  |
| 1.6080 | 0.9993 08023 | -0.0371 95091 | 2.3962 63907 | 2.5965 51697 |
| .6081  | .9993 04299  | .0372 95022   | .3965 23575  | .5967 91336  |
| .6082  | .9993 00564  | .0373 94952   | .3967 83266  | .5970 31002  |
| .6083  | .9992 96820  | .0374 94882   | .3970 42981  | .5972 70693  |
| .6084  | .9992 93065  | .0375 94812   | .3973 02720  | .5975 10410  |
| 1.6085 | 0.9992 89301 | -0.0376 94741 | 2.3975 62483 | 2.5977 50153 |
| .6086  | .9992 85526  | .0377 94670   | .3978 22270  | .5979 89923  |
| .6087  | .9992 81742  | .0378 94598   | .3980 82081  | .5982 29718  |
| .6088  | .9992 77947  | .0379 94526   | .3983 41916  | .5984 69539  |
| .6089  | .9992 74143  | .0380 94453   | .3986 01775  | .5987 09386  |
| 1.6090 | 0.9992 70328 | -0.0381 94381 | 2.3988 61658 | 2.5989 49259 |
| .6091  | .9992 66504  | .0382 94308   | .3991 21565  | .5991 89159  |
| .6092  | .9992 62670  | .0383 94234   | .3993 81496  | .5994 29084  |
| .6093  | .9992 58825  | .0384 94160   | .3996 41450  | .5996 69035  |
| .6094  | .9992 54971  | .0385 94086   | .3999 01429  | .5999 09012  |
| 1.6095 | 0.9992 51106 | -0.0386 94011 | 2.4001 61432 | 2.6001 49015 |
| .6096  | .9992 47232  | .0387 93936   | .4004 21459  | .6003 89044  |
| .6097  | .9992 43348  | .0388 93861   | .4006 81510  | .6006 29099  |
| .6098  | .9992 39453  | .0389 93785   | .4009 41585  | .6008 69181  |
| .6099  | .9992 35549  | .0390 93708   | .4012 01684  | .6011 09288  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.6100 | 0.9992 31634 | -0.0391 93632 | 2.4014 61807 | 2.6013 49421 |
| .6101  | .9992 27710  | .0392 93555   | .4017 21954  | .6015 89580  |
| .6102  | .9992 23776  | .0393 93477   | .4019 82125  | .6018 29765  |
| .6103  | .9992 19831  | .0394 93399   | .4022 42320  | .6020 69977  |
| .6104  | .9992 15877  | .0395 93321   | .4025 02539  | .6023 10214  |
| 1.6105 | 0.9992 11913 | -0.0396 93243 | 2.4027 62782 | 2.6025 50477 |
| .6106  | .9992 07938  | .0397 93164   | .4030 23049  | .6027 90766  |
| .6107  | .9992 03954  | .0398 93084   | .4032 83340  | .6030 31082  |
| .6108  | .9991 99960  | .0399 93004   | .4035 43655  | .6032 71423  |
| .6109  | .9991 95955  | .0400 92924   | .4038 03994  | .6035 11790  |
| 1.6110 | 0.9991 91941 | -0.0401 92844 | 2.4040 64357 | 2.6037 52184 |
| .6111  | .9991 87917  | .0402 92763   | .4043 24745  | .6039 92603  |
| .6112  | .9991 83883  | .0403 92681   | .4045 85156  | .6042 33049  |
| .6113  | .9991 79838  | .0404 92599   | .4048 45591  | .6044 73520  |
| .6114  | .9991 75784  | .0405 92517   | .4051 06051  | .6047 14018  |
| 1.6115 | 0.9991 71720 | -0.0406 92435 | 2.4053 66534 | 2.6049 54542 |
| .6116  | .9991 67646  | .0407 92352   | .4056 27042  | .6051 95091  |
| .6117  | .9991 63561  | .0408 92268   | .4058 87573  | .6054 35667  |
| .6118  | .9991 59467  | .0409 92184   | .4061 48129  | .6056 76269  |
| .6119  | .9991 55363  | .0410 92100   | .4064 08708  | .6059 16897  |
| 1.6120 | 0.9991 51249 | -0.0411 92015 | 2.4066 69312 | 2.6061 57550 |
| .6121  | .9991 47125  | .0412 91930   | .4069 29940  | .6063 98230  |
| .6122  | .9991 42990  | .0413 91845   | .4071 90592  | .6066 38936  |
| .6123  | .9991 38846  | .0414 91759   | .4074 51268  | .6068 79669  |
| .6124  | .9991 34692  | .0415 91673   | .4077 11968  | .6071 20427  |
| 1.6125 | 0.9991 30528 | -0.0416 91586 | 2.4079 72692 | 2.6073 61211 |
| .6126  | .9991 26354  | .0417 91499   | .4082 33440  | .6076 02021  |
| .6127  | .9991 22170  | .0418 91411   | .4084 94212  | .6078 42858  |
| .6128  | .9991 17975  | .0419 91323   | .4087 55009  | .6080 83720  |
| .6129  | .9991 13771  | .0420 91235   | .4090 15829  | .6083 24609  |
| 1.6130 | 0.9991 09557 | -0.0421 91146 | 2.4092 76673 | 2.6085 65523 |
| .6131  | .9991 05333  | .0422 91057   | .4095 37542  | .6088 06464  |
| .6132  | .9991 01099  | .0423 90967   | .4097 98435  | .6090 47431  |
| .6133  | .9990 96855  | .0424 90877   | .4100 59352  | .6092 88424  |
| .6134  | .9990 92601  | .0425 90786   | .4103 20292  | .6095 29443  |
| 1.6135 | 0.9990 88337 | -0.0426 90695 | 2.4105 81257 | 2.6097 70488 |
| .6136  | .9990 84063  | .0427 90604   | .4108 42247  | .6100 11559  |
| .6137  | .9990 79779  | .0428 90512   | .4111 03260  | .6102 52656  |
| .6138  | .9990 75485  | .0429 90420   | .4113 64297  | .6104 93780  |
| .6139  | .9990 71180  | .0430 90327   | .4116 25358  | .6107 34929  |
| 1.6140 | 0.9990 66866 | -0.0431 90234 | 2.4118 86444 | 2.6109 76105 |
| .6141  | .9990 62542  | .0432 90141   | .4121 47554  | .6112 17306  |
| .6142  | .9990 58208  | .0433 90047   | .4124 08687  | .6114 58534  |
| .6143  | .9990 53864  | .0434 89952   | .4126 69845  | .6116 99788  |
| .6144  | .9990 49510  | .0435 89857   | .4129 31027  | .6119 41068  |
| 1.6145 | 0.9990 45146 | -0.0436 89762 | 2.4131 92234 | 2.6121 82374 |
| .6146  | .9990 40772  | .0437 89666   | .4134 53464  | .6124 23707  |
| .6147  | .9990 36389  | .0438 89570   | .4137 14718  | .6126 65065  |
| .6148  | .9990 31995  | .0439 89474   | .4139 75997  | .6129 06449  |
| .6149  | .9990 27591  | .0440 89377   | .4142 37300  | .6131 47860  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.6150 | 0.9990 23177 | -0.0441 89279 | 2.4144 98627 | 2.6133 89297 |
| .6151  | .9990 18753  | .0442 89181   | .4147 59978  | .6136 30760  |
| .6152  | .9990 14319  | .0443 89083   | .4150 21353  | .6138 72249  |
| .6153  | .9990 09875  | .0444 88984   | .4152 82752  | .6141 13764  |
| .6154  | .9990 05421  | .0445 88885   | .4155 44175  | .6143 55306  |
| 1.6155 | 0.9990 00957 | -0.0446 88785 | 2.4158 05623 | 2.6145 96873 |
| .6156  | .9989 96483  | .0447 88685   | .4160 67095  | .6148 38467  |
| .6157  | .9989 91999  | .0448 88585   | .4163 28591  | .6150 80086  |
| .6158  | .9989 87506  | .0449 88484   | .4165 90111  | .6153 21732  |
| .6159  | .9989 83002  | .0450 88382   | .4168 51655  | .6155 63404  |
| 1.6160 | 0.9989 78488 | -0.0451 88280 | 2.4171 13223 | 2.6158 05103 |
| .6161  | .9989 73964  | .0452 88178   | .4173 74816  | .6160 46827  |
| .6162  | .9989 69430  | .0453 88075   | .4176 36433  | .6162 88578  |
| .6163  | .9989 64886  | .0454 87972   | .4178 98074  | .6165 30354  |
| .6164  | .9989 60333  | .0455 87868   | .4181 59739  | .6167 72157  |
| 1.6165 | 0.9989 55769 | -0.0456 87764 | 2.4184 21428 | 2.6170 13986 |
| .6166  | .9989 51195  | .0457 87659   | .4186 83142  | .6172 55842  |
| .6167  | .9989 46611  | .0458 87554   | .4189 44879  | .6174 97723  |
| .6168  | .9989 42018  | .0459 87448   | .4192 06641  | .6177 39631  |
| .6169  | .9989 37414  | .0460 87342   | .4194 68427  | .6179 81564  |
| 1.6170 | 0.9989 32800 | -0.0461 87236 | 2.4197 30238 | 2.6182 23524 |
| .6171  | .9989 28176  | .0462 87129   | .4199 92072  | .6184 65510  |
| .6172  | .9989 23543  | .0463 87021   | .4202 53931  | .6187 07523  |
| .6173  | .9989 18899  | .0464 86914   | .4205 15814  | .6189 49561  |
| .6174  | .9989 14245  | .0465 86805   | .4207 77721  | .6191 91626  |
| 1.6175 | 0.9989 09582 | -0.0466 86696 | 2.4210 39652 | 2.6194 33717 |
| .6176  | .9989 04908  | .0467 86587   | .4213 01607  | .6196 75834  |
| .6177  | .9989 00224  | .0468 86477   | .4215 63587  | .6199 17977  |
| .6178  | .9988 95531  | .0469 86367   | .4218 25591  | .6201 60146  |
| .6179  | .9988 90827  | .0470 86257   | .4220 87619  | .6204 02342  |
| 1.6180 | 0.9988 86113 | -0.0471 86145 | 2.4223 49671 | 2.6206 44564 |
| .6181  | .9988 81390  | .0472 86034   | .4226 11748  | .6208 86812  |
| .6182  | .9988 76656  | .0473 85922   | .4228 73849  | .6211 29086  |
| .6183  | .9988 71913  | .0474 85809   | .4231 35974  | .6213 71387  |
| .6184  | .9988 67159  | .0475 85696   | .4233 98123  | .6216 13714  |
| 1.6185 | 0.9988 62396 | -0.0476 85583 | 2.4236 60297 | 2.6218 56066 |
| .6186  | .9988 57622  | .0477 85469   | .4239 22494  | .6220 98446  |
| .6187  | .9988 52838  | .0478 85354   | .4241 84716  | .6223 40851  |
| .6188  | .9988 48045  | .0479 85239   | .4244 46962  | .6225 83283  |
| .6189  | .9988 43241  | .0480 85124   | .4247 09233  | .6228 25740  |
| 1.6190 | 0.9988 38428 | -0.0481 85008 | 2.4249 71528 | 2.6230 68224 |
| .6191  | .9988 33604  | .0482 84891   | .4252 33847  | .6233 10735  |
| .6192  | .9988 28771  | .0483 84774   | .4254 96190  | .6235 53271  |
| .6193  | .9988 23927  | .0484 84657   | .4257 58557  | .6237 95834  |
| .6194  | .9988 19074  | .0485 84539   | .4260 20949  | .6240 38423  |
| 1.6195 | 0.9988 14211 | -0.0486 84421 | 2.4262 83365 | 2.6242 81038 |
| .6196  | .9988 09337  | .0487 84302   | .4265 45805  | .6245 23680  |
| .6197  | .9988 04454  | .0488 84183   | .4268 08270  | .6247 66347  |
| .6198  | .9987 99560  | .0489 84063   | .4270 70758  | .6250 09041  |
| .6199  | .9987 94657  | .0490 83943   | .4273 33271  | .6252 51761  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.6200 | 0.9987 89743 | -0.0491 83822 | 2.4275 95809 | 2.6254 94508 |
| .6201  | .9987 84820  | .0492 83701   | .4278 58370  | .6257 37281  |
| .6202  | .9987 79887  | .0493 83579   | .4281 20956  | .6259 80079  |
| .6203  | .9987 74943  | .0494 83457   | .4283 83566  | .6262 22905  |
| .6204  | .9987 69990  | .0495 83334   | .4286 46201  | .6264 65756  |
| 1.6205 | 0.9987 65027 | -0.0496 83211 | 2.4289 08859 | 2.6267 08634 |
| .6206  | .9987 60053  | .0497 83087   | .4291 71543  | .6269 51538  |
| .6207  | .9987 55070  | .0498 82963   | .4294 34250  | .6271 94468  |
| .6208  | .9987 50077  | .0499 82838   | .4296 96981  | .6274 37425  |
| .6209  | .9987 45074  | .0500 82713   | .4299 59737  | .6276 80408  |
| 1.6210 | 0.9987 40060 | -0.0501 82587 | 2.4302 22517 | 2.6279 23417 |
| .6211  | .9987 35037  | .0502 82461   | .4304 85322  | .6281 66452  |
| .6212  | .9987 30004  | .0503 82334   | .4307 48151  | .6284 09514  |
| .6213  | .9987 24961  | .0504 82207   | .4310 11004  | .6286 52602  |
| .6214  | .9987 19907  | .0505 82079   | .4312 73881  | .6288 95716  |
| 1.6215 | 0.9987 14844 | -0.0506 81951 | 2.4315 36783 | 2.6291 38857 |
| .6216  | .9987 09771  | .0507 81822   | .4317 99709  | .6293 82023  |
| .6217  | .9987 04688  | .0506 81693   | .4320 62659  | .6295 25217  |
| .6218  | .9986 99595  | .0509 81563   | .4323 25634  | .6298 68436  |
| .6219  | .9986 94491  | .0510 81433   | .4325 88633  | .6301 11682  |
| 1.6220 | 0.9986 89378 | -0.0511 81302 | 2.4328 51656 | 2.6303 54954 |
| .6221  | .9986 84255  | .0512 81170   | .4331 14704  | .6305 98252  |
| .6222  | .9986 79122  | .0513 81039   | .4333 77776  | .6308 41577  |
| .6223  | .9986 73979  | .0514 80906   | .4336 40872  | .6310 84928  |
| .6224  | .9986 68826  | .0515 80773   | .4339 03993  | .6313 28305  |
| 1.6225 | 0.9986 63663 | -0.0516 80640 | 2.4341 67136 | 2.6315 71706 |
| .6226  | .9986 58490  | .0517 80506   | .4344 30307  | .6318 15138  |
| .6227  | .9986 53307  | .0518 80372   | .4346 93501  | .6320 58594  |
| .6228  | .9986 48114  | .0519 80237   | .4349 56719  | .6323 02077  |
| .6229  | .9986 42911  | .0520 80101   | .4352 19962  | .6325 45526  |
| 1.6230 | 0.9986 37698 | -0.0521 79965 | 2.4354 83228 | 2.6327 89121 |
| .6231  | .9986 32475  | .0522 79829   | .4357 46519  | .6330 32682  |
| .6232  | .9986 27242  | .0523 79692   | .4360 09835  | .6332 76270  |
| .6233  | .9986 21999  | .0524 79554   | .4362 73175  | .6335 19884  |
| .6234  | .9986 16746  | .0525 79416   | .4365 36539  | .6337 63525  |
| 1.6235 | 0.9986 11483 | -0.0526 79278 | 2.4367 99927 | 2.6340 07192 |
| .6236  | .9986 06210  | .0527 79139   | .4370 63340  | .6342 50885  |
| .6237  | .9986 00927  | .0528 78999   | .4373 26777  | .6344 94604  |
| .6238  | .9985 95634  | .0529 78859   | .4375 90239  | .6347 38350  |
| .6239  | .9985 90331  | .0530 78718   | .4378 53725  | .6349 82122  |
| 1.6240 | 0.9985 85018 | -0.0531 78577 | 2.4381 17236 | 2.6352 25921 |
| .6241  | .9985 79696  | .0532 78435   | .4383 80770  | .6354 69746  |
| .6242  | .9985 74363  | .0533 78293   | .4386 44330  | .6357 13597  |
| .6243  | .9985 69020  | .0534 78150   | .4389 07913  | .6359 57475  |
| .6244  | .9985 63667  | .0535 78007   | .4391 71521  | .6362 01379  |
| 1.6245 | 0.9985 58304 | -0.0536 77863 | 2.4394 35153 | 2.6364 45309 |
| .6246  | .9985 52932  | .0537 77718   | .4396 98810  | .6366 89266  |
| .6247  | .9985 47549  | .0538 77573   | .4399 62491  | .6369 33249  |
| .6248  | .9985 42156  | .0539 77428   | .4402 26187  | .6371 77258  |
| .6249  | .9985 36753  | .0540 77282   | .4404 89927  | .6374 21294  |

| $x$    | $\sin x$     | $\cos x$      | $\sinh x$    | $\cosh x$    |
|--------|--------------|---------------|--------------|--------------|
| 1.6250 | 0.9985 31341 | -0.0541 77135 | 2.4407 53681 | 2.8376 65356 |
| .6251  | .9985 25918  | .0542 76988   | .4410 17460  | .6379 09445  |
| .6252  | .9985 20485  | .0543 76840   | .4412 81263  | .6381 53560  |
| .6253  | .9985 15042  | .0544 76692   | .4415 45090  | .6383 97701  |
| .6254  | .9985 09590  | .0545 76543   | .4418 08942  | .6386 41869  |
| 1.6255 | 0.9985 04127 | -0.0546 76394 | 2.4420 72819 | 2.6388 86063 |
| .6256  | .9984 98655  | .0547 76244   | .4423 36720  | .6391 30283  |
| .6257  | .9984 93172  | .0548 76094   | .4426 00645  | .6393 74530  |
| .6258  | .9984 87679  | .0549 75943   | .4428 64595  | .6396 18803  |
| .6259  | .9984 82177  | .0550 75791   | .4431 28569  | .6398 63103  |
| 1.6260 | 0.9984 76664 | -0.0551 75639 | 2.4433 92567 | 2.6401 07429 |
| .6261  | .9984 71142  | .0552 75487   | .4436 56590  | .6403 51782  |
| .6262  | .9984 65609  | .0553 75333   | .4439 20638  | .6405 96160  |
| .6263  | .9984 60067  | .0554 75180   | .4441 84709  | .6408 40566  |
| .6264  | .9984 54514  | .0555 75025   | .4444 48806  | .6410 84997  |
| 1.6265 | 0.9984 48952 | -0.0556 74871 | 2.4447 12926 | 2.6413 29455 |
| .6266  | .9984 43379  | .0557 74715   | .4449 77072  | .6415 73940  |
| .6267  | .9984 37797  | .0558 74559   | .4452 41241  | .6418 18451  |
| .6268  | .9984 32204  | .0559 74403   | .4455 05435  | .6420 62988  |
| .6269  | .9984 26602  | .0560 74246   | .4457 69654  | .6423 07552  |
| 1.6270 | 0.9984 20989 | -0.0561 74088 | 2.4460 33897 | 2.6425 52142 |
| .6271  | .9984 15367  | .0562 73930   | .4462 98164  | .6427 96759  |
| .6272  | .9984 09734  | .0563 73771   | .4465 62456  | .6430 41402  |
| .6273  | .9984 04092  | .0564 73612   | .4468 26772  | .6432 86071  |
| .6274  | .9983 98440  | .0565 73452   | .4470 91113  | .6435 30767  |
| 1.6275 | 0.9983 92777 | -0.0566 73291 | 2.4473 55479 | 2.6437 75489 |
| .6276  | .9983 87105  | .0567 73130   | .4476 19868  | .6440 20238  |
| .6277  | .9983 81423  | .0568 72969   | .4478 84283  | .6442 65013  |
| .6278  | .9983 75731  | .0569 72807   | .4481 48721  | .6445 09815  |
| .6279  | .9983 70028  | .0570 72644   | .4484 13185  | .6447 54643  |
| 1.6280 | 0.9983 64316 | -0.0571 72481 | 2.4486 77672 | 2.6449 99498 |
| .6281  | .9983 58594  | .0572 72317   | .4489 42185  | .6452 44379  |
| .6282  | .9983 52862  | .0573 72152   | .4492 06721  | .6454 89286  |
| .6283  | .9983 47119  | .0574 71987   | .4494 71282  | .6457 34220  |
| .6284  | .9983 41367  | .0575 71822   | .4497 35868  | .6459 79180  |
| 1.6285 | 0.9983 35605 | -0.0576 71656 | 2.4500 00478 | 2.6462 24167 |
| .6286  | .9983 29833  | .0577 71489   | .4502 65113  | .6464 69181  |
| .6287  | .9983 24051  | .0578 71322   | .4505 29772  | .6467 14220  |
| .6288  | .9983 18259  | .0579 71154   | .4507 94456  | .6469 59286  |
| .6289  | .9983 12456  | .0580 70985   | .4510 59164  | .6472 04379  |
| 1.6290 | 0.9983 06644 | -0.0581 70816 | 2.4513 23897 | 2.6474 49498 |
| .6291  | .9983 00822  | .0582 70647   | .4515 88654  | .6476 94644  |
| .6292  | .9982 94990  | .0583 70476   | .4518 53436  | .6479 39816  |
| .6293  | .9982 89148  | .0584 70306   | .4521 18242  | .6481 85015  |
| .6294  | .9982 83296  | .0585 70134   | .4523 83073  | .6484 30240  |
| 1.6295 | 0.9982 77434 | -0.0586 69962 | 2.4526 47928 | 2.6486 75491 |
| .6296  | .9982 71562  | .0587 69790   | .4529 12808  | .6489 20769  |
| .6297  | .9982 65680  | .0588 69617   | .4531 77712  | .6491 66074  |
| .6298  | .9982 59788  | .0589 69443   | .4534 42641  | .6494 11405  |
| .6299  | .9982 53886  | .0590 69269   | .4537 07594  | .6496 56762  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.6300 | 0.9982 47974 | -0.0591 69094 | 2.4532 72572 | 2.6489 32146 |
| .6301  | .9982 42052  | .0592 68918   | .4542 37575  | .6501 47557  |
| .6302  | .9982 36121  | .0593 68742   | .4545 02602  | .6503 92994  |
| .6303  | .9982 30179  | .0594 68565   | .4547 67653  | .6506 38457  |
| .6304  | .9982 24227  | .0595 68388   | .4550 32729  | .6508 93947  |
| 1.6305 | 0.9982 18265 | -0.0596 68210 | 2.4552 97830 | 2.6511 29464 |
| .6306  | .9982 12293  | .0597 68032   | .4555 62955  | .6513 75007  |
| .6307  | .9982 06311  | .0599 67853   | .4558 28105  | .6516 20576  |
| .6308  | .9982 00320  | .0599 67673   | .4560 93279  | .6518 66173  |
| .6309  | .9981 94318  | .0600 67493   | .4563 58478  | .6521 11795  |
| 1.6310 | 0.9981 88306 | -0.0601 67312 | 2.4566 23702 | 2.6523 57444 |
| .6311  | .9981 82284  | .0602 67130   | .4568 88950  | .6526 03120  |
| .6312  | .9981 76253  | .0603 66948   | .4571 54222  | .6528 48822  |
| .6313  | .9981 70211  | .0604 66766   | .4574 19520  | .6530 94551  |
| .6314  | .9981 64159  | .0605 66582   | .4576 84841  | .6533 40306  |
| 1.6315 | 0.9981 58098 | -0.0606 66399 | 2.4579 50188 | 2.6535 86088 |
| .6316  | .9981 52026  | .0607 66214   | .4582 15559  | .6538 31896  |
| .6317  | .9981 45944  | .0608 66029   | .4584 80954  | .6540 77731  |
| .6318  | .9981 39853  | .0609 65843   | .4587 46374  | .6543 23592  |
| .6319  | .9981 33751  | .0610 65657   | .4590 11819  | .6545 69480  |
| 1.6320 | 0.9981 27640 | -0.0611 65470 | 2.4592 77288 | 2.6548 15395 |
| .6321  | .9981 21518  | .0612 65282   | .4595 42782  | .6550 61336  |
| .6322  | .9981 15387  | .0613 65094   | .4598 08300  | .6553 07303  |
| .6323  | .9981 09245  | .0614 64906   | .4600 73843  | .6555 53297  |
| .6324  | .9981 03094  | .0615 64716   | .4603 39411  | .6557 99318  |
| 1.6325 | 0.9980 96932 | -0.0616 64526 | 2.4606 05003 | 2.6560 45365 |
| .6326  | .9980 90761  | .0617 64336   | .4608 70620  | .6562 91439  |
| .6327  | .9980 84579  | .0618 64144   | .4611 36251  | .6565 37539  |
| .6328  | .9980 78388  | .0619 63952   | .4614 01927  | .6567 83666  |
| .6329  | .9980 72187  | .0620 63760   | .4616 67618  | .6570 29820  |
| 1.6330 | 0.9980 65975 | -0.0621 63567 | 2.4619 33333 | 2.6572 76000 |
| .6331  | .9980 59754  | .0622 63373   | .4621 99073  | .6575 22206  |
| .6332  | .9980 53523  | .0623 63179   | .4624 64838  | .6577 68439  |
| .6333  | .9980 47281  | .0624 62984   | .4627 30627  | .6580 14699  |
| .6334  | .9980 41030  | .0625 62788   | .4629 96441  | .6582 60986  |
| 1.6335 | 0.9980 34769 | -0.0626 62592 | 2.4632 62279 | 2.6585 07299 |
| .6336  | .9980 28497  | .0627 62395   | .4635 28142  | .6587 53638  |
| .6337  | .9980 22216  | .0628 62198   | .4637 94030  | .6590 00004  |
| .6338  | .9980 15925  | .0629 62000   | .4640 59942  | .6592 46397  |
| .6339  | .9980 09624  | .0630 61801   | .4643 25879  | .6594 92816  |
| 1.6340 | 0.9980 03313 | -0.0631 61602 | 2.4645 91841 | 2.6597 39262 |
| .6341  | .9979 96992  | .0632 61402   | .4648 57827  | .6599 85735  |
| .6342  | .9979 90660  | .0633 61201   | .4651 23838  | .6602 32234  |
| .6343  | .9979 84319  | .0634 61000   | .4653 89874  | .6604 78759  |
| .6344  | .9979 77968  | .0635 60798   | .4656 55934  | .6607 25312  |
| 1.6345 | 0.9979 71607 | -0.0636 60595 | 2.4659 22019 | 2.6609 71890 |
| .6346  | .9979 65236  | .0637 60392   | .4661 88128  | .6612 18496  |
| .6347  | .9979 58855  | .0638 60188   | .4664 54262  | .6614 65128  |
| .6348  | .9979 52464  | .0639 59984   | .4667 20421  | .6617 11787  |
| .6349  | .9979 46063  | .0640 59779   | .4669 86605  | .6619 58472  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.6350 | 0.9979 39652 | -0.0641 59573 | 2.4672 52813 | 2.6622 05184 |
| .6351  | .9979 33231  | .0642 59367   | .4675 19046  | .6624 51923  |
| .6352  | .9979 26800  | .0643 59160   | .4677 85303  | .6626 98688  |
| .6353  | .9979 20359  | .0644 58952   | .4680 51585  | .6629 45480  |
| .6354  | .9979 13908  | .0645 58744   | .4683 17892  | .6631 92298  |
| 1.6355 | 0.9979 07448 | -0.0646 58535 | 2.4685 84224 | 2.6634 39143 |
| .6356  | .9979 00977  | .0647 58325   | .4688 50580  | .6636 86015  |
| .6357  | .9978 94496  | .0648 58115   | .4691 16961  | .6639 32914  |
| .6358  | .9978 88005  | .0649 57904   | .4693 83367  | .6641 79839  |
| .6359  | .9978 81504  | .0650 57693   | .4696 49797  | .6644 26790  |
| 1.6360 | 0.9978 74994 | -0.0651 57481 | 2.4699 16252 | 2.6646 73768 |
| .6361  | .9978 68473  | .0652 57268   | .4701 82732  | .6649 20773  |
| .6362  | .9978 61942  | .0653 57054   | .4704 49236  | .6651 67805  |
| .6363  | .9978 55401  | .0654 56840   | .4707 15765  | .6654 14863  |
| .6364  | .9978 48851  | .0655 56625   | .4709 82319  | .6656 61948  |
| 1.6365 | 0.9978 42290 | -0.0656 56410 | 2.4712 48898 | 2.6659 09060 |
| .6366  | .9978 35719  | .0657 56194   | .4715 15501  | .6661 56198  |
| .6367  | .9978 29139  | .0658 55977   | .4717 82129  | .6664 03363  |
| .6368  | .9978 22548  | .0659 55760   | .4720 48782  | .6666 50554  |
| .6369  | .9978 15948  | .0660 55542   | .4723 15459  | .6668 97773  |
| 1.6370 | 0.9978 09337 | -0.0661 55323 | 2.4725 82161 | 2.6671 45017 |
| .6371  | .9978 02717  | .0662 55103   | .4728 48888  | .6673 92289  |
| .6372  | .9977 96086  | .0663 54883   | .4731 15640  | .6676 39587  |
| .6373  | .9977 89446  | .0664 54663   | .4733 82416  | .6678 86912  |
| .6374  | .9977 82795  | .0665 54441   | .4736 49217  | .6681 34264  |
| 1.6375 | 0.9977 76135 | -0.0666 54219 | 2.4739 16043 | 2.6683 81642 |
| .6376  | .9977 69464  | .0667 53996   | .4741 82893  | .6686 29047  |
| .6377  | .9977 62784  | .0668 53773   | .4744 49769  | .6688 76479  |
| .6378  | .9977 56094  | .0669 53549   | .4747 16669  | .6691 23937  |
| .6379  | .9977 49393  | .0670 53324   | .4749 83594  | .6693 71422  |
| 1.6380 | 0.9977 42683 | -0.0671 53099 | 2.4752 50543 | 2.6696 18934 |
| .6381  | .9977 35963  | .0672 52873   | .4755 17517  | .6698 66472  |
| .6382  | .9977 29232  | .0673 52646   | .4757 84516  | .6701 14037  |
| .6383  | .9977 22492  | .0674 52419   | .4760 51540  | .6703 61629  |
| .6384  | .9977 15742  | .0675 52191   | .4763 18589  | .6706 09247  |
| 1.6385 | 0.9977 08982 | -0.0676 51962 | 2.4765 85662 | 2.6708 56893 |
| .6386  | .9977 02211  | .0677 51732   | .4768 52760  | .6711 04565  |
| .6387  | .9976 95431  | .0678 51502   | .4771 19883  | .6713 52263  |
| .6388  | .9976 88641  | .0679 51271   | .4773 87030  | .6715 99989  |
| .6389  | .9976 81841  | .0680 51040   | .4776 54203  | .6718 47741  |
| 1.6390 | 0.9976 75031 | -0.0681 50808 | 2.4779 21400 | 2.6720 95519 |
| .6391  | .9976 68211  | .0682 50575   | .4781 88622  | .6723 43325  |
| .6392  | .9976 61381  | .0683 50342   | .4784 55869  | .6725 91157  |
| .6393  | .9976 54541  | .0684 50107   | .4787 23140  | .6728 39016  |
| .6394  | .9976 47691  | .0685 49872   | .4789 90437  | .6730 86902  |
| 1.6395 | 0.9976 40831 | -0.0686 49637 | 2.4792 57758 | 2.6733 34814 |
| .6396  | .9976 33961  | .0687 49401   | .4795 25103  | .6735 82753  |
| .6397  | .9976 27081  | .0688 49164   | .4797 92474  | .6738 30719  |
| .6398  | .9976 20191  | .0689 48926   | .4800 59870  | .6740 78712  |
| .6399  | .9976 13291  | .0690 48688   | .4803 27290  | .6743 26731  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.6400 | 0.9976 06381 | -0.0691 48449 | 2.4805 94735 | 2.6745 74777 |
| .6401  | .9975 99461  | .0692 48209   | .4808 62205  | .6746 22250  |
| .6402  | .9975 92532  | .0693 47969   | .4811 29700  | .6750 70950  |
| .6403  | .9975 85592  | .0694 47727   | .4813 97219  | .6753 19076  |
| .6404  | .9975 78642  | .0695 47486   | .4816 64753  | .6755 67229  |
| 1.6405 | 0.9975 71682 | -0.0696 47243 | 2.4819 32332 | 2.6758 15409 |
| .6406  | .9975 64713  | .0697 47000   | .4821 99926  | .6760 63616  |
| .6407  | .9975 57733  | .0698 46756   | .4824 67545  | .6763 11849  |
| .6408  | .9975 50743  | .0699 46512   | .4827 35189  | .6765 60109  |
| .6409  | .9975 43744  | .0700 46266   | .4830 02857  | .6768 06396  |
| 1.6410 | 0.9975 36734 | -0.0701 46020 | 2.4832 70550 | 2.6770 56710 |
| .6411  | .9975 29714  | .0702 45774   | .4835 38269  | .6773 05050  |
| .6412  | .9975 22685  | .0703 45526   | .4838 06012  | .6775 53417  |
| .6413  | .9975 15645  | .0704 45278   | .4840 73779  | .6778 01811  |
| .6414  | .9975 08596  | .0705 45029   | .4843 41572  | .6780 50232  |
| 1.6415 | 0.9975 01536 | -0.0706 44780 | 2.4846 09389 | 2.6782 98680 |
| .6416  | .9974 94467  | .0707 44530   | .4848 77232  | .6785 47154  |
| .6417  | .9974 87387  | .0708 44279   | .4851 45099  | .6787 95655  |
| .6418  | .9974 80298  | .0709 44027   | .4854 12991  | .6790 44183  |
| .6419  | .9974 73199  | .0710 43775   | .4856 60908  | .6792 92738  |
| 1.6420 | 0.9974 66089 | -0.0711 43522 | 2.4859 48849 | 2.6795 41319 |
| .6421  | .9974 58970  | .0712 43268   | .4862 16816  | .6797 89927  |
| .6422  | .9974 51841  | .0713 43014   | .4864 84807  | .6800 38563  |
| .6423  | .9974 44701  | .0714 42758   | .4867 52824  | .6802 87224  |
| .6424  | .9974 37552  | .0715 42503   | .4870 20865  | .6805 35913  |
| 1.6425 | 0.9974 30393 | -0.0716 42246 | 2.4872 88931 | 2.6807 84629 |
| .6426  | .9974 23224  | .0717 41989   | .4875 57022  | .6810 33371  |
| .6427  | .9974 16044  | .0718 41731   | .4878 25137  | .6812 82140  |
| .6428  | .9974 08855  | .0719 41472   | .4880 93278  | .6815 30936  |
| .6429  | .9974 01656  | .0720 41212   | .4883 61444  | .6817 79759  |
| 1.6430 | 0.9973 94447 | -0.0721 40952 | 2.4886 29634 | 2.6820 28608 |
| .6431  | .9973 87228  | .0722 40691   | .4888 97849  | .6822 77485  |
| .6432  | .9973 79999  | .0723 40430   | .4891 66090  | .6825 26388  |
| .6433  | .9973 72760  | .0724 40167   | .4894 34355  | .6827 75318  |
| .6434  | .9973 65511  | .0725 39904   | .4897 02645  | .6830 24275  |
| 1.6435 | 0.9973 58252 | -0.0726 39640 | 2.4899 70959 | 2.6832 73258 |
| .6436  | .9973 50983  | .0727 39376   | .4902 39299  | .6835 22269  |
| .6437  | .9973 43704  | .0728 39111   | .4905 07664  | .6837 71306  |
| .6438  | .9973 36415  | .0729 38845   | .4907 76054  | .6840 20370  |
| .6439  | .9973 29116  | .0730 38578   | .4910 44468  | .6842 69461  |
| 1.6440 | 0.9973 21807 | -0.0731 38310 | 2.4913 12907 | 2.6845 18579 |
| .6441  | .9973 14489  | .0732 38042   | .4915 81372  | .6847 67724  |
| .6442  | .9973 07160  | .0733 37773   | .4918 49861  | .6850 16896  |
| .6443  | .9972 99821  | .0734 37504   | .4921 18375  | .6852 66094  |
| .6444  | .9972 92472  | .0735 37233   | .4923 86914  | .6855 15319  |
| 1.6445 | 0.9972 85114 | -0.0736 36962 | 2.4926 55478 | 2.6857 64571 |
| .6446  | .9972 77745  | .0737 36690   | .4929 24067  | .6860 13850  |
| .6447  | .9972 70366  | .0738 36418   | .4931 92681  | .6862 63156  |
| .6448  | .9972 62978  | .0739 36144   | .4934 61320  | .6865 12489  |
| .6449  | .9972 55579  | .0740 35870   | .4937 29983  | .6867 61846  |



| $x$    | $\sin x$     | $\cos x$      | $\sinh x$    | $\cosh x$    |
|--------|--------------|---------------|--------------|--------------|
| 1.6450 | 0.9972 48170 | -0.0741 35595 | 2.4939 98672 | 2.6870 11235 |
| .6451  | .9972 40752  | .0742 35320   | .4942 67386  | .6872 60648  |
| .6452  | .9972 33323  | .0743 35044   | .4945 36124  | .6875 10088  |
| .6453  | .9972 25885  | .0744 34767   | .4948 04888  | .6877 59555  |
| .6454  | .9972 18436  | .0745 34489   | .4950 73676  | .6880 09049  |
| 1.6455 | 0.9972 10978 | -0.0746 34210 | 2.4953 42489 | 2.6882 58570 |
| .6456  | .9972 03510  | .0747 33931   | .4956 11328  | .6885 08118  |
| .6457  | .9971 96031  | .0748 33651   | .4958 80191  | .6887 57692  |
| .6458  | .9971 88543  | .0749 33370   | .4961 49079  | .6890 07294  |
| .6459  | .9971 81045  | .0750 33089   | .4964 17993  | .6892 56922  |
| 1.6460 | 0.9971 73536 | -0.0751 32806 | 2.4966 86931 | 2.6895 06577 |
| .6461  | .9971 66018  | .0752 32523   | .4969 55894  | .6897 56260  |
| .6462  | .9971 58490  | .0753 32240   | .4972 24882  | .6900 05969  |
| .6463  | .9971 50952  | .0754 31955   | .4974 93895  | .6902 55705  |
| .6464  | .9971 43403  | .0755 31670   | .4977 62933  | .6905 05467  |
| 1.6465 | 0.9971 35845 | -0.0756 31384 | 2.4980 31996 | 2.6907 55257 |
| .6466  | .9971 28277  | .0757 31097   | .4983 01084  | .6910 05074  |
| .6467  | .9971 20699  | .0758 30809   | .4985 70197  | .6912 54917  |
| .6468  | .9971 13111  | .0759 30521   | .4988 39335  | .6915 04788  |
| .6469  | .9971 05513  | .0760 30232   | .4991 08498  | .6917 54685  |
| 1.6470 | 0.9970 97905 | -0.0761 29942 | 2.4993 77686 | 2.6920 04610 |
| .6471  | .9970 90287  | .0762 29652   | .4996 46899  | .6922 54561  |
| .6472  | .9970 82659  | .0763 29360   | .4999 16137  | .6925 04539  |
| .6473  | .9970 75021  | .0764 29068   | .5001 85400  | .6927 54544  |
| .6474  | .9970 67373  | .0765 28775   | .5004 54688  | .6930 04576  |
| 1.6475 | 0.9970 59715 | -0.0766 28482 | 2.5007 24001 | 2.6932 54635 |
| .6476  | .9970 52047  | .0767 28187   | .5009 93339  | .6935 04721  |
| .6477  | .9970 44370  | .0768 27892   | .5012 62702  | .6937 54834  |
| .6478  | .9970 36682  | .0769 27596   | .5015 32090  | .6940 04973  |
| .6479  | .9970 28984  | .0770 27299   | .5018 01503  | .6942 55140  |
| 1.6480 | 0.9970 21276 | -0.0771 27002 | 2.5020 70941 | 2.6945 05334 |
| .6481  | .9970 13559  | .0772 26704   | .5023 40404  | .6947 55554  |
| .6482  | .9970 05831  | .0773 26405   | .5026 09892  | .6950 05802  |
| .6483  | .9969 98093  | .0774 26105   | .5028 79405  | .6952 56076  |
| .6484  | .9969 90346  | .0775 25804   | .5031 48943  | .6955 06378  |
| 1.6485 | 0.9969 82588 | -0.0776 25503 | 2.5034 18506 | 2.6957 56706 |
| .6486  | .9969 74821  | .0777 25201   | .5036 88095  | .6960 07061  |
| .6487  | .9969 67043  | .0778 24898   | .5039 57708  | .6962 57444  |
| .6488  | .9969 59256  | .0779 24594   | .5042 27346  | .6965 07853  |
| .6489  | .9969 51458  | .0780 24290   | .5044 97009  | .6967 58289  |
| 1.6490 | 0.9969 43651 | -0.0781 23984 | 2.5047 66698 | 2.6970 08752 |
| .6491  | .9969 35834  | .0782 23678   | .5050 36411  | .6972 59242  |
| .6492  | .9969 28006  | .0783 23372   | .5053 06150  | .6975 09760  |
| .6493  | .9969 20169  | .0784 23064   | .5055 75913  | .6977 60304  |
| .6494  | .9969 12322  | .0785 22756   | .5058 45702  | .6980 10875  |
| 1.6495 | 0.9969 04464 | -0.0786 22446 | 2.5061 15515 | 2.6982 61473 |
| .6496  | .9968 96597  | .0787 22136   | .5063 85354  | .6985 12098  |
| .6497  | .9968 88720  | .0788 21826   | .5066 55218  | .6987 62750  |
| .6498  | .9968 80833  | .0789 21514   | .5069 25106  | .6990 13429  |
| .6499  | .9968 72936  | .0790 21202   | .5071 95020  | .6992 64135  |

| $x$    | $\sin x$     | $\cos x$      | $\sinh x$    | $\cosh x$    |
|--------|--------------|---------------|--------------|--------------|
| 1.6500 | 0.9968 65028 | -0.0791 20889 | 2.5074 64959 | 2.6995 14368 |
| .6501  | .9968 57111  | .0792 20575   | .5077 34923  | .6997 65628  |
| .6502  | .9968 49184  | .0793 20260   | .5080 04912  | .7000 16415  |
| .6503  | .9968 41247  | .0794 19945   | .5082 74927  | .7002 67229  |
| .6504  | .9968 33300  | .0795 19628   | .5085 44966  | .7005 18070  |
| 1.6505 | 0.9968 25343 | -0.0796 19311 | 2.5088 15030 | 2.7007 68938 |
| .6506  | .9968 17376  | .0797 18994   | .5090 85120  | .7010 19833  |
| .6507  | .9968 09400  | .0798 18675   | .5093 55234  | .7012 70755  |
| .6508  | .9968 01413  | .0799 18355   | .5096 25374  | .7015 21704  |
| .6509  | .9967 93416  | .0800 18035   | .5098 95539  | .7017 72680  |
| 1.6510 | 0.9967 85409 | -0.0801 17714 | 2.5101 65728 | 2.7020 23683 |
| .6511  | .9967 77392  | .0802 17392   | .5104 35943  | .7022 74713  |
| .6512  | .9967 69366  | .0803 17070   | .5107 06183  | .7025 25770  |
| .6513  | .9967 61329  | .0804 16746   | .5109 76448  | .7027 76854  |
| .6514  | .9967 53282  | .0805 16422   | .5112 46739  | .7030 27966  |
| 1.6515 | 0.9967 45226 | -0.0806 16097 | 2.5115 17054 | 2.7032 79104 |
| .6516  | .9967 37159  | .0807 15771   | .5117 87394  | .7035 30269  |
| .6517  | .9967 29083  | .0808 15444   | .5120 57760  | .7037 81461  |
| .6518  | .9967 20967  | .0809 15117   | .5123 28151  | .7040 32680  |
| .6519  | .9967 12900  | .0810 14788   | .5125 98567  | .7042 83927  |
| 1.6520 | 0.9967 04793 | -0.0811 14459 | 2.5128 69008 | 2.7045 35200 |
| .6521  | .9966 96677  | .0812 14129   | .5131 39474  | .7047 86501  |
| .6522  | .9966 88550  | .0813 13799   | .5134 09965  | .7050 37828  |
| .6523  | .9966 80414  | .0814 13467   | .5136 80481  | .7052 89183  |
| .6524  | .9966 72268  | .0815 13135   | .5139 51023  | .7055 40564  |
| 1.6525 | 0.9966 64111 | -0.0816 12802 | 2.5142 21589 | 2.7057 91973 |
| .6526  | .9966 55945  | .0817 12468   | .5144 92181  | .7060 43409  |
| .6527  | .9966 47769  | .0818 12133   | .5147 62798  | .7062 94871  |
| .6528  | .9966 39583  | .0819 11797   | .5150 33440  | .7065 46361  |
| .6529  | .9966 31386  | .0820 11461   | .5153 04107  | .7067 97878  |
| 1.6530 | 0.9966 23180 | -0.0821 11123 | 2.5155 74800 | 2.7070 49422 |
| .6531  | .9966 14964  | .0822 10785   | .5158 45517  | .7073 00993  |
| .6532  | .9966 06738  | .0823 10446   | .5161 16260  | .7075 52591  |
| .6533  | .9965 98502  | .0824 10107   | .5163 87028  | .7078 04216  |
| .6534  | .9965 90256  | .0825 09766   | .5166 57821  | .7080 55868  |
| 1.6535 | 0.9965 82000 | -0.0826 09425 | 2.5169 28639 | 2.7083 07548 |
| .6536  | .9965 73734  | .0827 09082   | .5171 99482  | .7085 59254  |
| .6537  | .9965 65458  | .0828 08739   | .5174 70351  | .7088 10988  |
| .6538  | .9965 57172  | .0829 08396   | .5177 41244  | .7090 62748  |
| .6539  | .9965 48877  | .0830 08051   | .5180 12163  | .7093 14536  |
| 1.6540 | 0.9965 40571 | -0.0831 07705 | 2.5182 83107 | 2.7095 66351 |
| .6541  | .9965 32255  | .0832 07359   | .5185 54077  | .7098 18192  |
| .6542  | .9965 23929  | .0833 07012   | .5188 25071  | .7100 70061  |
| .6543  | .9965 15594  | .0834 06664   | .5190 96091  | .7103 21958  |
| .6544  | .9965 07248  | .0835 06315   | .5193 67135  | .7105 73881  |
| 1.6545 | 0.9964 98892 | -0.0836 05965 | 2.5196 38205 | 2.7108 25831 |
| .6546  | .9964 90527  | .0837 05615   | .5199 09300  | .7110 77808  |
| .6547  | .9964 82151  | .0838 05263   | .5201 80421  | .7113 29813  |
| .6548  | .9964 73766  | .0839 04911   | .5204 51566  | .7115 81844  |
| .6549  | .9964 65370  | .0840 04558   | .5207 22737  | .7118 33903  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.6550 | 0.9964 56965 | -0.0841 04204 | 2.5209 93933 | 2.7120 85989 |
| .6551  | .9964 48549  | .0842 03849   | .5212 65154  | .7123 38102  |
| .6552  | .9964 40124  | .0843 03494   | .5215 36401  | .7125 90242  |
| .6553  | .9964 31689  | .0844 03137   | .5218 07672  | .7128 42409  |
| .6554  | .9964 23243  | .0845 02780   | .5220 78969  | .7130 94604  |
| 1.6555 | 0.9964 14788 | -0.0846 02422 | 2.5223 50291 | 2.7133 46825 |
| .6556  | .9964 06323  | .0847 02063   | .5226 21639  | .7135 99074  |
| .6557  | .9963 97848  | .0848 01703   | .5228 93011  | .7138 51349  |
| .6558  | .9963 89363  | .0849 01343   | .5231 64409  | .7141 03652  |
| .6559  | .9963 80868  | .0850 00981   | .5234 35832  | .7143 55982  |
| 1.6560 | 0.9963 72362 | -0.0851 00619 | 2.5237 07280 | 2.7146 08339 |
| .6561  | .9963 63847  | .0852 00256   | .5239 78754  | .7148 60724  |
| .6562  | .9963 55322  | .0852 99892   | .5242 50252  | .7151 13135  |
| .6563  | .9963 46787  | .0853 99527   | .5245 21776  | .7153 65574  |
| .6564  | .9963 38242  | .0854 99161   | .5247 93325  | .7156 18039  |
| 1.6565 | 0.9963 29688 | -0.0855 98794 | 2.5250 64900 | 2.7158 70532 |
| .6566  | .9963 21123  | .0856 98427   | .5253 36500  | .7161 23052  |
| .6567  | .9963 12548  | .0857 98059   | .5256 08124  | .7163 75600  |
| .6568  | .9963 03963  | .0858 97689   | .5258 79775  | .7166 28174  |
| .6569  | .9962 95368  | .0859 97319   | .5261 51450  | .7168 80776  |
| 1.6570 | 0.9962 86764 | -0.0860 96949 | 2.5264 23151 | 2.7171 33404 |
| .6571  | .9962 78149  | .0861 96577   | .5266 94877  | .7173 86060  |
| .6572  | .9962 69524  | .0862 96204   | .5269 66628  | .7176 38743  |
| .6573  | .9962 60890  | .0863 95831   | .5272 38405  | .7178 91454  |
| .6574  | .9962 52245  | .0864 95456   | .5275 10206  | .7181 44191  |
| 1.6575 | 0.9962 43591 | -0.0865 95081 | 2.5277 82033 | 2.7183 96956 |
| .6576  | .9962 34926  | .0866 94705   | .5280 53886  | .7186 49747  |
| .6577  | .9962 26252  | .0867 94328   | .5283 25763  | .7189 02566  |
| .6578  | .9962 17567  | .0868 93950   | .5285 97666  | .7191 55413  |
| .6579  | .9962 08873  | .0869 93572   | .5288 69594  | .7194 08286  |
| 1.6580 | 0.9962 00169 | -0.0870 93192 | 2.5291 41548 | 2.7196 61186 |
| .6581  | .9961 91454  | .0871 92812   | .5294 13527  | .7199 14114  |
| .6582  | .9961 82730  | .0872 92430   | .5296 85531  | .7201 67069  |
| .6583  | .9961 73996  | .0873 92048   | .5299 57560  | .7204 20051  |
| .6584  | .9961 65252  | .0874 91665   | .5302 29615  | .7206 73061  |
| 1.6585 | 0.9961 56497 | -0.0875 91281 | 2.5305 01695 | 2.7209 26097 |
| .6586  | .9961 47733  | .0876 90897   | .5307 73800  | .7211 79161  |
| .6587  | .9961 38959  | .0877 90511   | .5310 45931  | .7214 32252  |
| .6588  | .9961 30175  | .0878 90124   | .5313 18086  | .7216 85370  |
| .6589  | .9961 21381  | .0879 89737   | .5315 90268  | .7219 38516  |
| 1.6590 | 0.9961 12577 | -0.0880 89349 | 2.5318 62474 | 2.7221 91688 |
| .6591  | .9961 03763  | .0881 88959   | .5321 34706  | .7224 44888  |
| .6592  | .9960 94940  | .0882 88569   | .5324 06963  | .7226 98115  |
| .6593  | .9960 86106  | .0883 88178   | .5326 79246  | .7229 51370  |
| .6594  | .9960 77262  | .0884 87787   | .5329 51553  | .7232 04651  |
| 1.6595 | 0.9960 68408 | -0.0885 87394 | 2.5332 23886 | 2.7234 57960 |
| .6596  | .9960 59544  | .0886 87000   | .5334 96245  | .7237 11296  |
| .6597  | .9960 50671  | .0887 86606   | .5337 68629  | .7239 64659  |
| .6598  | .9960 41787  | .0888 86210   | .5340 41038  | .7242 18050  |
| .6599  | .9960 32893  | .0889 85814   | .5343 13472  | .7244 71467  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.6600 | 0.9960 23990 | -0.0890 85417 | 2.5346 85932 | 2.7247 24912 |
| .6601  | .9960 15076  | .0891 85019   | .5348 58417  | .7249 78384  |
| .6602  | .9960 06153  | .0892 84620   | .5351 30928  | .7252 31884  |
| .6603  | .9959 97219  | .0893 84220   | .5354 03464  | .7254 85411  |
| .6604  | .9959 88276  | .0894 83819   | .5356 76025  | .7257 38965  |
| 1.6605 | 0.9959 79323 | -0.0895 83418 | 2.5359 48612 | 2.7259 92546 |
| .6606  | .9959 70359  | .0896 83015   | .5362 21223  | .7262 46154  |
| .6607  | .9959 61386  | .0897 82612   | .5364 93861  | .7264 99790  |
| .6608  | .9959 52403  | .0898 82208   | .5367 66523  | .7267 53453  |
| .6609  | .9959 43410  | .0899 81802   | .5370 39211  | .7270 07143  |
| 1.6610 | 0.9959 34407 | -0.0900 81396 | 2.5373 11925 | 2.7272 60861 |
| .6611  | .9959 25393  | .0901 80989   | .5375 94664  | .7275 14606  |
| .6612  | .9959 16370  | .0902 80581   | .5378 57428  | .7277 68378  |
| .6613  | .9959 07337  | .0903 80172   | .5381 30217  | .7280 22177  |
| .6614  | .9958 98294  | .0904 79763   | .5384 03032  | .7282 76004  |
| 1.6615 | 0.9958 89241 | -0.0905 79352 | 2.5386 75872 | 2.7285 29858 |
| .6616  | .9958 80178  | .0906 78941   | .5389 48738  | .7287 83739  |
| .6617  | .9958 71106  | .0907 78528   | .5392 21629  | .7290 37648  |
| .6618  | .9958 62023  | .0908 78115   | .5394 94546  | .7292 91583  |
| .6619  | .9958 52930  | .0909 77701   | .5397 67486  | .7295 45547  |
| 1.6620 | 0.9958 43827 | -0.0910 77285 | 2.5400 40455 | 2.7297 99537 |
| .6621  | .9958 34714  | .0911 76869   | .5403 13447  | .7300 53555  |
| .6622  | .9958 25592  | .0912 76452   | .5405 86466  | .7303 07600  |
| .6623  | .9958 16459  | .0913 76034   | .5408 59509  | .7305 61672  |
| .6624  | .9958 07317  | .0914 75616   | .5411 32578  | .7308 15772  |
| 1.6625 | 0.9957 98164 | -0.0915 75196 | 2.5414 05672 | 2.7310 69898 |
| .6626  | .9957 89002  | .0916 74775   | .5416 78792  | .7313 24053  |
| .6627  | .9957 79829  | .0917 74354   | .5419 51937  | .7315 78234  |
| .6628  | .9957 70647  | .0918 73931   | .5422 25107  | .7318 32443  |
| .6629  | .9957 61454  | .0919 73508   | .5424 98303  | .7320 86679  |
| 1.6630 | 0.9957 52252 | -0.0920 73084 | 2.5427 71525 | 2.7323 40943 |
| .6631  | .9957 43040  | .0921 72658   | .5430 44772  | .7325 95234  |
| .6632  | .9957 33817  | .0922 72232   | .5433 18044  | .7328 49552  |
| .6633  | .9957 24585  | .0923 71805   | .5435 91342  | .7331 03897  |
| .6634  | .9957 15343  | .0924 71377   | .5438 64665  | .7333 58270  |
| 1.6635 | 0.9957 06091 | -0.0925 70948 | 2.5441 38013 | 2.7336 12670 |
| .6636  | .9956 96829  | .0926 70518   | .5444 11387  | .7338 67098  |
| .6637  | .9956 87557  | .0927 70088   | .5446 84787  | .7341 21552  |
| .6638  | .9956 78275  | .0928 69656   | .5449 58211  | .7343 76035  |
| .6639  | .9956 68983  | .0929 69223   | .5452 31662  | .7346 30544  |
| 1.6640 | 0.9956 59681 | -0.0930 68790 | 2.5455 05138 | 2.7348 85081 |
| .6641  | .9956 50369  | .0931 68355   | .5457 78639  | .7351 39645  |
| .6642  | .9956 41047  | .0932 67920   | .5460 52166  | .7353 94237  |
| .6643  | .9956 31716  | .0933 67483   | .5463 25718  | .7356 48855  |
| .6644  | .9956 22374  | .0934 67046   | .5465 99295  | .7359 03502  |
| 1.6645 | 0.9956 13022 | -0.0935 66608 | 2.5468 72898 | 2.7361 58175 |
| .6646  | .9956 03661  | .0936 66169   | .5471 46527  | .7364 12876  |
| .6647  | .9955 94289  | .0937 65729   | .5474 20181  | .7366 67605  |
| .6648  | .9955 84907  | .0938 65287   | .5476 93860  | .7369 22360  |
| .6649  | .9955 75516  | .0939 64845   | .5479 67565  | .7371 77143  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.6650 | 0.9955 66114 | -0.0940 64403 | 2.5482 41296 | 2.7374 31954 |
| .6651  | .9955 56703  | .0941 63959   | .5485 15052  | .7376 86792  |
| .6652  | .9955 47282  | .0942 63514   | .5487 88833  | .7379 41657  |
| .6653  | .9955 37850  | .0943 63068   | .5490 62640  | .7381 96549  |
| .6654  | .9955 28409  | .0944 62621   | .5493 36473  | .7384 51469  |
| 1.6655 | 0.9955 18958 | -0.0945 62174 | 2.5496 10330 | 2.7387 06417 |
| .6656  | .9955 09497  | .0946 61725   | .5498 84214  | .7389 61391  |
| .6657  | .9955 00025  | .0947 61276   | .5501 58123  | .7392 16394  |
| .6658  | .9954 90544  | .0948 60825   | .5504 32057  | .7394 71423  |
| .6659  | .9954 81053  | .0949 60374   | .5507 06017  | .7397 26480  |
| 1.6660 | 0.9954 71552 | -0.0950 59921 | 2.5509 80002 | 2.7399 81564 |
| .6661  | .9954 62041  | .0951 59468   | .5512 54013  | .7402 36676  |
| .6662  | .9954 52520  | .0952 59014   | .5515 28050  | .7404 91815  |
| .6663  | .9954 42989  | .0953 58559   | .5518 02112  | .7407 46982  |
| .6664  | .9954 33449  | .0954 58102   | .5520 76199  | .7410 02176  |
| 1.6665 | 0.9954 23898 | -0.0955 57645 | 2.5523 50312 | 2.7412 57397 |
| .6666  | .9954 14337  | .0956 57187   | .5526 24451  | .7415 12646  |
| .6667  | .9954 04766  | .0957 56728   | .5528 98615  | .7417 67922  |
| .6668  | .9953 95186  | .0958 56268   | .5531 72804  | .7420 23225  |
| .6669  | .9953 85595  | .0959 55807   | .5534 47019  | .7422 78556  |
| 1.6670 | 0.9953 75995 | -0.0960 55345 | 2.5537 21260 | 2.7425 33915 |
| .6671  | .9953 66384  | .0961 54882   | .5539 95526  | .7427 89301  |
| .6672  | .9953 56764  | .0962 54419   | .5542 69818  | .7430 44714  |
| .6673  | .9953 47133  | .0963 53954   | .5545 44135  | .7433 00155  |
| .6674  | .9953 37493  | .0964 53488   | .5548 18478  | .7435 55623  |
| 1.6675 | 0.9953 27843 | -0.0965 53021 | 2.5550 92846 | 2.7438 11118 |
| .6676  | .9953 18182  | .0966 52554   | .5553 67240  | .7440 66641  |
| .6677  | .9953 08512  | .0967 52085   | .5556 41659  | .7443 22192  |
| .6678  | .9952 98832  | .0968 51615   | .5559 16104  | .7445 77770  |
| .6679  | .9952 89142  | .0969 51145   | .5561 90575  | .7448 33375  |
| 1.6680 | 0.9952 79442 | -0.0970 50673 | 2.5564 65071 | 2.7450 89008 |
| .6681  | .9952 69732  | .0971 50201   | .5567 39593  | .7453 44668  |
| .6682  | .9952 60012  | .0972 49727   | .5570 14140  | .7456 00356  |
| .6683  | .9952 50282  | .0973 49253   | .5572 88713  | .7458 56071  |
| .6684  | .9952 40542  | .0974 48777   | .5575 63311  | .7461 11813  |
| 1.6685 | 0.9952 30792 | -0.0975 48301 | 2.5578 37935 | 2.7463 67583 |
| .6686  | .9952 21032  | .0976 47823   | .5581 12585  | .7466 23381  |
| .6687  | .9952 11262  | .0977 47345   | .5583 87260  | .7468 79206  |
| .6688  | .9952 01483  | .0978 46866   | .5586 61961  | .7471 35058  |
| .6689  | .9951 91693  | .0979 46385   | .5589 36687  | .7473 90938  |
| 1.6690 | 0.9951 81893 | -0.0980 45904 | 2.5592 11439 | 2.7476 46846 |
| .6691  | .9951 72084  | .0981 45422   | .5594 86216  | .7479 02781  |
| .6692  | .9951 62264  | .0982 44938   | .5597 61019  | .7481 58743  |
| .6693  | .9951 52435  | .0983 44454   | .5600 35848  | .7484 14733  |
| .6694  | .9951 42595  | .0984 43969   | .5603 10702  | .7486 70750  |
| 1.6695 | 0.9951 32746 | -0.0985 43483 | 2.5605 85582 | 2.7489 26795 |
| .6696  | .9951 22887  | .0986 42995   | .5608 60488  | .7491 82867  |
| .6697  | .9951 13017  | .0987 42507   | .5611 35419  | .7494 38967  |
| .6698  | .9951 03138  | .0988 42018   | .5614 10376  | .7496 95094  |
| .6699  | .9950 93249  | .0989 41528   | .5616 85358  | .7499 51249  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.6700 | 0.9950 83350 | -0.0990 41037 | 2.5619 60366 | 2.7502 07431 |
| .6701  | .9950 73441  | .0991 40544   | .5622 35399  | .7504 63641  |
| .6702  | .9950 63522  | .0992 40051   | .5625 10458  | .7507 19972  |
| .6703  | .9950 53593  | .0993 39557   | .5627 85543  | .7509 76143  |
| .6704  | .9950 43654  | .0994 39062   | .5630 60654  | .7512 32436  |
| 1.6705 | 0.9950 33705 | -0.0995 38566 | 2.5633 35790 | 2.7514 88755 |
| .6706  | .9950 23746  | .0996 38069   | .5636 10951  | .7517 45103  |
| .6707  | .9950 13777  | .0997 37571   | .5638 86139  | .7520 01478  |
| .6708  | .9950 03799  | .0998 37072   | .5641 61352  | .7522 57880  |
| .6709  | .9949 93810  | .0999 36571   | .5644 36590  | .7525 14310  |
| 1.6710 | 0.9949 83811 | -0.1000 36070 | 2.5647 11855 | 2.7527 70767 |
| .6711  | .9949 73803  | .1001 35568   | .5649 87145  | .7530 27252  |
| .6712  | .9949 63784  | .1002 35065   | .5652 62460  | .7532 83765  |
| .6713  | .9949 53756  | .1003 34561   | .5655 37801  | .7535 40305  |
| .6714  | .9949 43717  | .1004 34056   | .5658 13168  | .7537 96872  |
| 1.6715 | 0.9949 33669 | -0.1005 33550 | 2.5660 88561 | 2.7540 53467 |
| .6716  | .9949 23611  | .1006 33043   | .5663 63979  | .7543 10090  |
| .6717  | .9949 13542  | .1007 32534   | .5666 39423  | .7545 66740  |
| .6718  | .9949 03464  | .1008 32025   | .5669 14892  | .7548 23418  |
| .6719  | .9948 93376  | .1009 31515   | .5671 90387  | .7550 80123  |
| 1.6720 | 0.9948 83278 | -0.1010 31004 | 2.5674 65908 | 2.7553 36856 |
| .6721  | .9948 73170  | .1011 30492   | .5677 41455  | .7555 93616  |
| .6722  | .9948 63052  | .1012 29979   | .5680 17027  | .7558 50404  |
| .6723  | .9948 52924  | .1013 29464   | .5682 92625  | .7561 07220  |
| .6724  | .9948 42786  | .1014 28949   | .5685 68248  | .7563 64063  |
| 1.6725 | 0.9948 32638 | -0.1015 28433 | 2.5688 43898 | 2.7566 20933 |
| .6726  | .9948 22480  | .1016 27916   | .5691 19573  | .7568 77832  |
| .6727  | .9948 12312  | .1017 27397   | .5693 95273  | .7571 34757  |
| .6728  | .9948 02135  | .1018 26878   | .5696 71000  | .7573 91711  |
| .6729  | .9947 91947  | .1019 26358   | .5699 46752  | .7576 48692  |
| 1.6730 | 0.9947 81749 | -0.1020 25836 | 2.5702 22529 | 2.7579 05700 |
| .6731  | .9947 71542  | .1021 25314   | .5704 98333  | .7581 62736  |
| .6732  | .9947 61324  | .1022 24791   | .5707 74162  | .7584 19800  |
| .6733  | .9947 51097  | .1023 24266   | .5710 50017  | .7586 76891  |
| .6734  | .9947 40859  | .1024 23741   | .5713 25897  | .7589 34010  |
| 1.6735 | 0.9947 30612 | -0.1025 23215 | 2.5716 01803 | 2.7591 91156 |
| .6736  | .9947 20355  | .1026 22687   | .5718 77735  | .7594 48330  |
| .6737  | .9947 10087  | .1027 22159   | .5721 53693  | .7597 05532  |
| .6738  | .9946 99810  | .1028 21629   | .5724 29677  | .7599 62761  |
| .6739  | .9946 89523  | .1029 21099   | .5727 05686  | .7602 20018  |
| 1.6740 | 0.9946 79226 | -0.1030 20567 | 2.5729 81721 | 2.7604 77302 |
| .6741  | .9946 68919  | .1031 20034   | .5732 57781  | .7607 34614  |
| .6742  | .9946 58602  | .1032 19501   | .5735 33867  | .7609 91953  |
| .6743  | .9946 48275  | .1033 18966   | .5738 09980  | .7612 49321  |
| .6744  | .9946 37938  | .1034 18430   | .5740 86117  | .7615 06715  |
| 1.6745 | 0.9946 27591 | -0.1035 17894 | 2.5743 62281 | 2.7617 64138 |
| .6746  | .9946 17235  | .1036 17356   | .5746 38470  | .7620 21588  |
| .6747  | .9946 06868  | .1037 16817   | .5749 14685  | .7622 79066  |
| .6748  | .9945 96491  | .1038 16277   | .5751 90926  | .7625 36571  |
| .6749  | .9945 86105  | .1039 15737   | .5754 67193  | .7627 94104  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.6750 | 0.9945 75708 | -0.1040 15195 | 2.5757 43485 | 2.7630 51664 |
| .6751  | .9945 65302  | .1041 14652   | .5760 19803  | .7633 09252  |
| .6752  | .9945 54885  | .1042 14108   | .5762 96147  | .7635 66868  |
| .6753  | .9945 44459  | .1043 13563   | .5765 72516  | .7638 24512  |
| .6754  | .9945 34023  | .1044 13017   | .5768 48912  | .7640 82183  |
| 1.6755 | 0.9945 23576 | -0.1045 12469 | 2.5771 25333 | 2.7643 39881 |
| .6756  | .9945 13120  | .1046 11921   | .5774 01780  | .7645 97608  |
| .6757  | .9945 02654  | .1047 11372   | .5776 78252  | .7648 55362  |
| .6758  | .9944 92178  | .1048 10822   | .5779 54751  | .7651 13143  |
| .6759  | .9944 81692  | .1049 10270   | .5782 31275  | .7653 70953  |
| 1.6760 | 0.9944 71196 | -0.1050 09718 | 2.5785 07825 | 2.7656 28790 |
| .6761  | .9944 60690  | .1051 09165   | .5787 84401  | .7658 86654  |
| .6762  | .9944 50174  | .1052 08610   | .5790 61002  | .7661 44547  |
| .6763  | .9944 39648  | .1053 08055   | .5793 37629  | .7664 02467  |
| .6764  | .9944 29112  | .1054 07498   | .5796 14283  | .7666 60414  |
| 1.6765 | 0.9944 18567 | -0.1055 06941 | 2.5798 90962 | 2.7669 18389 |
| .6766  | .9944 08011  | .1056 06382   | .5801 67666  | .7671 76392  |
| .6767  | .9943 97445  | .1057 05822   | .5804 44397  | .7674 34423  |
| .6768  | .9943 86870  | .1058 05261   | .5807 21153  | .7676 92481  |
| .6769  | .9943 76284  | .1059 04700   | .5809 97935  | .7679 50567  |
| 1.6770 | 0.9943 65689 | -0.1060 04137 | 2.5812 74743 | 2.7682 08681 |
| .6771  | .9943 55083  | .1061 03573   | .5815 51577  | .7684 66822  |
| .6772  | .9943 44468  | .1062 03008   | .5818 28437  | .7687 24991  |
| .6773  | .9943 33845  | .1063 02442   | .5821 05322  | .7689 83188  |
| .6774  | .9943 23208  | .1064 01874   | .5823 82233  | .7692 41412  |
| 1.6775 | 0.9943 12562 | -0.1065 01306 | 2.5826 59170 | 2.7694 99664 |
| .6776  | .9943 01907  | .1066 00737   | .5829 36133  | .7697 57944  |
| .6777  | .9942 91242  | .1067 00167   | .5832 13122  | .7700 16251  |
| .6778  | .9942 80567  | .1067 99595   | .5834 90136  | .7702 74587  |
| .6779  | .9942 69882  | .1068 99023   | .5837 67177  | .7705 32949  |
| 1.6780 | 0.9942 59187 | -0.1069 98449 | 2.5840 44243 | 2.7707 91340 |
| .6781  | .9942 48483  | .1070 97875   | .5843 21335  | .7710 49758  |
| .6782  | .9942 37768  | .1071 97299   | .5845 98453  | .7713 08204  |
| .6783  | .9942 27043  | .1072 96722   | .5848 75597  | .7715 66678  |
| .6784  | .9942 16309  | .1073 96144   | .5851 52766  | .7718 25179  |
| 1.6785 | 0.9942 05564 | -0.1074 95565 | 2.5854 29962 | 2.7720 83709 |
| .6786  | .9941 94809  | .1075 94985   | .5857 07183  | .7723 42265  |
| .6787  | .9941 84045  | .1076 94404   | .5859 84430  | .7726 00850  |
| .6788  | .9941 73271  | .1077 93822   | .5862 61703  | .7728 59462  |
| .6789  | .9941 62486  | .1078 93239   | .5865 39002  | .7731 18102  |
| 1.6790 | 0.9941 51692 | -0.1079 92655 | 2.5868 16327 | 2.7733 76770 |
| .6791  | .9941 40888  | .1080 92069   | .5870 93678  | .7736 35466  |
| .6792  | .9941 30073  | .1081 91483   | .5873 71054  | .7738 94189  |
| .6793  | .9941 19249  | .1082 90895   | .5876 48456  | .7741 52940  |
| .6794  | .9941 08415  | .1083 90307   | .5879 25885  | .7744 11719  |
| 1.6795 | 0.9940 97571 | -0.1084 89717 | 2.5882 03339 | 2.7746 70525 |
| .6796  | .9940 86717  | .1085 89126   | .5884 80619  | .7749 29359  |
| .6797  | .9940 75853  | .1086 88534   | .5887 58325  | .7751 88221  |
| .6798  | .9940 64980  | .1087 87941   | .5890 35856  | .7754 47111  |
| .6799  | .9940 54096  | .1088 87347   | .5893 13414  | .7757 06028  |

| $x$    | $\sin x$     | $\cos x$      | $\sinh x$    | $\cosh x$    |
|--------|--------------|---------------|--------------|--------------|
| 1.6800 | 0.9940 43202 | -0.1089 86752 | 2.5895 90998 | 2.7759 64974 |
| .6801  | .9940 32299  | .1090 86156   | .5898 68607  | .7762 23947  |
| .6802  | .9940 21385  | .1091 85559   | .5901 46242  | .7764 32947  |
| .6803  | .9940 10461  | .1092 84960   | .5904 23904  | .7767 41976  |
| .6804  | .9939 99528  | .1093 84361   | .5907 01591  | .7770 01032  |
| 1.6805 | 0.9939 88585 | -0.1094 83760 | 2.5909 79304 | 2.7772 60116 |
| .6806  | .9939 77631  | .1095 83159   | .5912 57043  | .7775 19223  |
| .6807  | .9939 66668  | .1096 82556   | .5915 34808  | .7777 78368  |
| .6808  | .9939 55695  | .1097 81952   | .5918 12598  | .7780 37535  |
| .6809  | .9939 44712  | .1098 81347   | .5920 90415  | .7782 96730  |
| 1.6810 | 0.9939 33718 | -0.1099 80741 | 2.5923 68258 | 2.7785 55953 |
| .6811  | .9939 22715  | .1100 80134   | .5926 46126  | .7788 15204  |
| .6812  | .9939 11702  | .1101 79525   | .5929 24021  | .7790 74462  |
| .6813  | .9939 00679  | .1102 78916   | .5932 01941  | .7793 33789  |
| .6814  | .9938 89647  | .1103 78305   | .5934 79688  | .7795 93123  |
| 1.6815 | 0.9938 78604 | -0.1104 77694 | 2.5937 57860 | 2.7798 52484 |
| .6816  | .9938 67551  | .1105 77081   | .5940 35858  | .7801 11574  |
| .6817  | .9938 56488  | .1106 76467   | .5943 13862  | .7803 71292  |
| .6818  | .9938 45416  | .1107 75852   | .5945 91932  | .7806 30737  |
| .6819  | .9938 34333  | .1108 75236   | .5948 70008  | .7808 90210  |
| 1.6820 | 0.9938 23241 | -0.1109 74619 | 2.5951 48110 | 2.7811 49711 |
| .6821  | .9938 12138  | .1110 74001   | .5954 26238  | .7814 09240  |
| .6822  | .9938 01026  | .1111 73382   | .5957 04392  | .7816 68796  |
| .6823  | .9937 89904  | .1112 72761   | .5959 82572  | .7819 28381  |
| .6824  | .9937 78771  | .1113 72140   | .5962 60778  | .7821 87993  |
| 1.6825 | 0.9937 67629 | -0.1114 71517 | 2.5965 39010 | 2.7824 47633 |
| .6826  | .9937 56477  | .1115 70893   | .5968 17267  | .7827 07301  |
| .6827  | .9937 45315  | .1116 70268   | .5970 95551  | .7829 66936  |
| .6828  | .9937 34143  | .1117 69642   | .5973 73661  | .7832 26720  |
| .6829  | .9937 22961  | .1118 69015   | .5976 52196  | .7834 86471  |
| 1.6830 | 0.9937 11769 | -0.1119 68387 | 2.5979 30558 | 2.7837 46250 |
| .6831  | .9937 00567  | .1120 67758   | .5982 08946  | .7840 06057  |
| .6832  | .9936 89356  | .1121 67127   | .5984 87359  | .7842 65892  |
| .6833  | .9936 78134  | .1122 66495   | .5987 65799  | .7845 25755  |
| .6834  | .9936 66902  | .1123 65863   | .5990 44264  | .7847 85645  |
| 1.6835 | 0.9936 55661 | -0.1124 65229 | 2.5993 22756 | 2.7850 45563 |
| .6836  | .9936 44409  | .1125 64594   | .5996 01274  | .7853 05510  |
| .6837  | .9936 33148  | .1126 63958   | .5998 79817  | .7855 65484  |
| .6838  | .9936 21877  | .1127 63320   | .6001 58387  | .7858 25486  |
| .6839  | .9936 10595  | .1128 62682   | .6004 36982  | .7860 85515  |
| 1.6840 | 0.9935 99304 | -0.1129 62043 | 2.6007 15604 | 2.7863 45573 |
| .6841  | .9935 88003  | .1130 61402   | .6009 94251  | .7866 05658  |
| .6842  | .9935 76692  | .1131 60760   | .6012 72925  | .7868 65772  |
| .6843  | .9935 65371  | .1132 60117   | .6015 51625  | .7871 25913  |
| .6844  | .9935 54040  | .1133 59473   | .6018 30350  | .7873 86082  |
| 1.6845 | 0.9935 42699 | -0.1134 58828 | 2.6021 09102 | 2.7876 46279 |
| .6846  | .9935 31348  | .1135 58182   | .6023 87879  | .7879 06504  |
| .6847  | .9935 19987  | .1136 57534   | .6026 66683  | .7881 66757  |
| .6848  | .9935 08616  | .1137 56886   | .6029 45513  | .7884 27037  |
| .6849  | .9934 97236  | .1138 56236   | .6032 24369  | .7886 87346  |



| x  | sin x  | cos x   | sinh x   | cosh x   |
|--|--|---|--|--|
| 1.6850<br>.6851<br>.6852<br>.6853<br>.6854 | 0.9934 85845<br>.9934 74445<br>.9934 63034<br>.9934 51614<br>.9934 40183 | -0.1139 55585<br>.1140 54933<br>.1141 54280<br>.1142 53626<br>.1143 52970 | 2.6035 03250<br>.6037 82158<br>.6040 61092<br>.6043 40052<br>.6046 19038 | 2.7889 47682<br>.7892 08046<br>.7894 68439<br>.7897 28859<br>.7899 89307 |
| 1.6855<br>.6856<br>.6857<br>.6858<br>.6859 | 0.9934 28743<br>.9934 17293<br>.9934 05833<br>.9933 94363<br>.9933 82883 | -0.1144 52314<br>.1145 51656<br>.1146 50997<br>.1147 50337<br>.1148 49676 | 2.6048 98050<br>.6051 77088<br>.6054 56152<br>.6057 35242<br>.6060 14358 | 2.7902 49782<br>.7905 10286<br>.7907 70818<br>.7910 31377<br>.7912 91965 |
| 1.6860<br>.6861<br>.6862<br>.6863<br>.6864 | 0.9933 71393<br>.9933 59893<br>.9933 48383<br>.9933 36863<br>.9933 25334 | -0.1149 49014<br>.1150 48350<br>.1151 47686<br>.1152 47020<br>.1153 46353 | 2.6062 93500<br>.6065 72668<br>.6068 51863<br>.6071 31083<br>.6074 10330 | 2.7915 52580<br>.7918 13224<br>.7920 73895<br>.7923 34594<br>.7925 95321 |
| 1.6865<br>.6866<br>.6867<br>.6868<br>.6869 | 0.9933 13794<br>.9933 02245<br>.9932 90685<br>.9932 79116<br>.9932 67536 | -0.1154 45685<br>.1155 45016<br>.1156 44346<br>.1157 43674<br>.1158 43001 | 2.6076 89602<br>.6079 68901<br>.6082 48226<br>.6085 27576<br>.6088 06953 | 2.7928 56076<br>.7931 16859<br>.7933 77670<br>.7936 38509<br>.7938 99375 |
| 1.6870<br>.6871<br>.6872<br>.6873<br>.6874 | 0.9932 55947<br>.9932 44348<br>.9932 32739<br>.9932 21120<br>.9932 09491 | -0.1159 42328<br>.1160 41653<br>.1161 40977<br>.1162 40299<br>.1163 39621 | 2.6090 86356<br>.6093 65785<br>.6096 45241<br>.6099 24722<br>.6102 04229 | 2.7941 60270<br>.7944 21193<br>.7946 82143<br>.7949 43122<br>.7952 04128 |
| 1.6875<br>.6876<br>.6877<br>.6878<br>.6879 | 0.9931 97852<br>.9931 86203<br>.9931 74544<br>.9931 62876<br>.9931 51197 | -0.1164 38941<br>.1165 38260<br>.1166 37578<br>.1167 36895<br>.1168 36211 | 2.6104 83763<br>.6107 63322<br>.6110 42908<br>.6113 22520<br>.6116 02158 | 2.7954 65163<br>.7957 26225<br>.7959 87315<br>.7962 48433<br>.7965 09580 |
| 1.6880<br>.6881<br>.6882<br>.6883<br>.6884 | 0.9931 39508<br>.9931 27810<br>.9931 16101<br>.9931 04383<br>.9930 92655 | -0.1169 35525<br>.1170 34839<br>.1171 34151<br>.1172 33462<br>.1173 32772 | 2.6118 81822<br>.6121 61512<br>.6124 41228<br>.6127 20970<br>.6130 00739 | 2.7967 70754<br>.7970 31956<br>.7972 93186<br>.7975 54444<br>.7978 15730 |
| 1.6885<br>.6886<br>.6887<br>.6888<br>.6889 | 0.9930 80916<br>.9930 69168<br>.9930 57410<br>.9930 45642<br>.9930 33864 | -0.1174 32081<br>.1175 31388<br>.1176 30694<br>.1177 30000<br>.1178 29304 | 2.6132 80533<br>.6135 60354<br>.6138 40201<br>.6141 20074<br>.6143 99973 | 2.7980 77044<br>.7983 38386<br>.7985 99757<br>.7988 61155<br>.7991 22581 |
| 1.6890<br>.6891<br>.6892<br>.6893<br>.6894 | 0.9930 22076<br>.9930 10278<br>.9929 98471<br>.9929 86653<br>.9929 74825 | -0.1179 28606<br>.1180 27908<br>.1181 27208<br>.1182 26508<br>.1183 25806 | 2.6146 79899<br>.6149 59850<br>.6152 39828<br>.6155 19832<br>.6157 99862 | 2.7993 84035<br>.7996 45517<br>.7999 07027<br>.8001 68564<br>.8004 30130 |
| 1.6895<br>.6896<br>.6897<br>.6898<br>.6899 | 0.9929 62988<br>.9929 51140<br>.9929 39283<br>.9929 27416<br>.9929 15538 | -0.1184 25103<br>.1185 24398<br>.1186 23693<br>.1187 22986<br>.1188 22278 | 2.6160 79918<br>.6163 60000<br>.6166 40108<br>.6169 20243<br>.6172 00404 | 2.8006 91724<br>.8009 53346<br>.8012 14996<br>.8014 76674<br>.8017 38381 |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.6900 | 0.9929 03651 | -0.1189 21568 | 2.8174 80691 | 2.8020 00118 |
| .6901  | .9928 91754  | .1190 20859   | .8177 60804  | .8023 61877  |
| .6902  | .9928 79847  | .1191 20148   | .8180 41043  | .8026 33847  |
| .6903  | .9928 67930  | .1192 19435   | .8183 21308  | .8029 05817  |
| .6904  | .9928 56003  | .1193 18721   | .8186 01600  | .8031 77781  |
| 1.6905 | 0.9928 44036 | -0.1194 18006 | 2.8188 81918 | 2.8033 49806 |
| .6906  | .9928 32118  | .1195 17290   | .8191 62228  | .8036 21767  |
| .6907  | .9928 20183  | .1196 16573   | .8194 42632  | .8038 93738  |
| .6908  | .9928 08196  | .1197 15854   | .8197 23028  | .8041 65698  |
| .6909  | .9927 96220  | .1198 15134   | .8200 03451  | .8044 37658  |
| 1.6910 | 0.9927 84233 | -0.1199 14413 | 2.8202 83900 | 2.8046 09627 |
| .6911  | .9927 72237  | .1200 13691   | .8205 64375  | .8048 81588  |
| .6912  | .9927 60230  | .1201 12968   | .8208 44876  | .8051 53549  |
| .6913  | .9927 48214  | .1202 12243   | .8211 25404  | .8054 25509  |
| .6914  | .9927 36188  | .1203 11517   | .8214 05957  | .8056 97473  |
| 1.6915 | 0.9927 24152 | -0.1204 10790 | 2.8216 86537 | 2.8058 69439 |
| .6916  | .9927 12106  | .1205 10062   | .8219 67143  | .8061 41392  |
| .6917  | .9927 00050  | .1206 09333   | .8222 47775  | .8064 13343  |
| .6918  | .9926 87984  | .1207 08602   | .8225 28434  | .8067 85294  |
| .6919  | .9926 75908  | .1208 07870   | .8228 09119  | .8069 57258  |
| 1.6920 | 0.9926 63822 | -0.1209 07137 | 2.8230 89829 | 2.8072 29228 |
| .6921  | .9926 51727  | .1210 06403   | .8233 70567  | .8075 01188  |
| .6922  | .9926 39621  | .1211 05668   | .8236 51300  | .8077 73149  |
| .6923  | .9926 27505  | .1212 04931   | .8239 32120  | .8080 45109  |
| .6924  | .9926 15380  | .1213 04193   | .8242 12936  | .8083 17069  |
| 1.6925 | 0.9926 03245 | -0.1214 03454 | 2.8244 93778 | 2.8085 89039 |
| .6926  | .9925 91099  | .1215 02714   | .8247 74646  | .8088 60999  |
| .6927  | .9925 78944  | .1216 01972   | .8250 55541  | .8091 32959  |
| .6928  | .9925 66779  | .1217 01230   | .8253 36462  | .8094 04919  |
| .6929  | .9925 54604  | .1218 00486   | .8256 17409  | .8096 76879  |
| 1.6930 | 0.9925 42419 | -0.1218 99741 | 2.8258 98382 | 2.8098 48849 |
| .6931  | .9925 30224  | .1219 98994   | .8261 79382  | .8101 20809  |
| .6932  | .9925 18019  | .1220 98247   | .8264 60408  | .8103 92769  |
| .6933  | .9925 05804  | .1221 97498   | .8267 41460  | .8106 64729  |
| .6934  | .9924 93580  | .1222 96748   | .8270 22538  | .8109 36689  |
| 1.6935 | 0.9924 81345 | -0.1223 95997 | 2.8273 03643 | 2.8111 08649 |
| .6936  | .9924 69100  | .1224 95244   | .8275 84774  | .8114 80609  |
| .6937  | .9924 56846  | .1225 94490   | .8278 65931  | .8117 52569  |
| .6938  | .9924 44581  | .1226 93735   | .8281 47115  | .8119 24529  |
| .6939  | .9924 32307  | .1227 92979   | .8284 28325  | .8122 96489  |
| 1.6940 | 0.9924 20023 | -0.1228 92222 | 2.8287 09561 | 2.8124 68449 |
| .6941  | .9924 07729  | .1229 91463   | .8289 90823  | .8127 40409  |
| .6942  | .9923 95425  | .1230 90703   | .8292 72112  | .8130 12369  |
| .6943  | .9923 83111  | .1231 89942   | .8295 53427  | .8132 84329  |
| .6944  | .9923 70787  | .1232 89180   | .8298 34768  | .8135 56289  |
| 1.6945 | 0.9923 58453 | -0.1233 88417 | 2.8301 16136 | 2.8138 28249 |
| .6946  | .9923 46109  | .1234 87652   | .8303 97530  | .8140 00209  |
| .6947  | .9923 33755  | .1235 86886   | .8306 78950  | .8142 72169  |
| .6948  | .9923 21392  | .1236 86119   | .8309 60396  | .8145 44129  |
| .6949  | .9923 09018  | .1237 85350   | .8312 41869  | .8148 16089  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.6950 | 0.9922 96634 | -0.1238 84580 | 2.6315 23368 | 2.8151 22597 |
| .6951  | .9922 84241  | .1239 83809   | .6318 04894  | .8153 85764  |
| .6952  | .9922 71838  | .1240 83037   | .6320 86445  | .8156 48958  |
| .6953  | .9922 59424  | .1241 82264   | .6323 18023  | .8159 12181  |
| .6954  | .9922 47001  | .1242 81489   | .6326 49628  | .8161 75432  |
| 1.6955 | 0.9922 34568 | -0.1243 80713 | 2.6329 31258 | 2.8164 38711 |
| .6956  | .9922 22125  | .1244 79936   | .6332 12915  | .8167 02018  |
| .6957  | .9922 09672  | .1245 79158   | .6334 94599  | .8169 65353  |
| .6958  | .9921 97209  | .1246 78378   | .6337 76308  | .8172 28717  |
| .6959  | .9921 84736  | .1247 77597   | .6340 58045  | .8174 92109  |
| 1.6960 | 0.9921 72254 | -0.1248 76815 | 2.6343 39807 | 2.8177 55528 |
| .6961  | .9921 59761  | .1249 76031   | .6346 21596  | .8180 18977  |
| .6962  | .9921 47259  | .1250 75247   | .6349 03411  | .8182 82453  |
| .6963  | .9921 34746  | .1251 74461   | .6351 85252  | .8185 45957  |
| .6964  | .9921 22224  | .1252 73674   | .6354 67120  | .8188 09490  |
| 1.6965 | 0.9921 09691 | -0.1253 72885 | 2.6357 49014 | 2.8190 73051 |
| .6966  | .9920 97149  | .1254 72096   | .6360 30935  | .8193 36640  |
| .6967  | .9920 84597  | .1255 71305   | .6363 12881  | .8196 00257  |
| .6968  | .9920 72035  | .1256 70513   | .6365 94855  | .8198 63902  |
| .6969  | .9920 59463  | .1257 69719   | .6368 76854  | .8201 27576  |
| 1.6970 | 0.9920 46881 | -0.1258 68925 | 2.6371 58880 | 2.8203 91278 |
| .6971  | .9920 34289  | .1259 68129   | .6374 40932  | .8206 55008  |
| .6972  | .9920 21687  | .1260 67331   | .6377 23011  | .8209 18766  |
| .6973  | .9920 09076  | .1261 66533   | .6380 05116  | .8211 82552  |
| .6974  | .9919 96454  | .1262 65733   | .6382 87248  | .8214 46367  |
| 1.6975 | 0.9919 83822 | -0.1263 64932 | 2.6385 69405 | 2.8217 10210 |
| .6976  | .9919 71161  | .1264 64130   | .6388 51590  | .8219 74081  |
| .6977  | .9919 58530  | .1265 63326   | .6391 33800  | .8222 37980  |
| .6978  | .9919 45868  | .1266 62522   | .6394 16037  | .8225 01907  |
| .6979  | .9919 33197  | .1267 61716   | .6396 98301  | .8227 65863  |
| 1.6980 | 0.9919 20516 | -0.1268 60908 | 2.6399 80590 | 2.8230 29847 |
| .6981  | .9919 07825  | .1269 60100   | .6402 62907  | .8232 93859  |
| .6982  | .9918 95124  | .1270 59290   | .6405 45249  | .8235 57900  |
| .6983  | .9918 82413  | .1271 58479   | .6408 27618  | .8238 21968  |
| .6984  | .9918 69692  | .1272 57666   | .6411 10014  | .8240 86065  |
| 1.6985 | 0.9918 56961 | -0.1273 56853 | 2.6413 92435 | 2.8243 50190 |
| .6986  | .9918 44221  | .1274 56038   | .6416 74884  | .8246 14344  |
| .6987  | .9918 31470  | .1275 55222   | .6419 57358  | .8248 78525  |
| .6988  | .9918 18710  | .1276 54404   | .6422 39859  | .8251 42735  |
| .6989  | .9918 05939  | .1277 53585   | .6425 22387  | .8254 06973  |
| 1.6990 | 0.9917 93159 | -0.1278 52765 | 2.6428 04941 | 2.8256 71240 |
| .6991  | .9917 80369  | .1279 51944   | .6430 87521  | .8259 35534  |
| .6992  | .9917 67569  | .1280 51121   | .6433 70128  | .8261 99857  |
| .6993  | .9917 54759  | .1281 50297   | .6436 52761  | .8264 64208  |
| .6994  | .9917 41939  | .1282 49472   | .6439 35421  | .8267 28588  |
| 1.6995 | 0.9917 29109 | -0.1283 48646 | 2.6442 18107 | 2.8269 92995 |
| .6996  | .9917 16269  | .1284 47818   | .6445 00819  | .8272 57431  |
| .6997  | .9917 03419  | .1285 46989   | .6447 83558  | .8275 21896  |
| .6998  | .9916 90560  | .1286 46159   | .6450 66324  | .8277 86388  |
| .6999  | .9916 77690  | .1287 45327   | .6453 49116  | .8280 50909  |

| $x$    | $\sin x$     | $\cos x$      | $\sinh x$    | $\cosh x$    |
|--------|--------------|---------------|--------------|--------------|
| 1.7000 | 0.9916 84810 | -0.1288 44484 | 2.3456 31934 | 2.8223 15452 |
| .7001  | .9916 51821  | .1289 43660   | .3459 14779  | .3459 80085  |
| .7002  | .9916 39022  | .1290 42825   | .3461 57350  | .3461 44641  |
| .7003  | .9916 26112  | .1291 41988   | .3464 20546  | .3464 09275  |
| .7004  | .9916 13193  | .1292 41150   | .3467 43672  | .3467 73937  |
| 1.7005 | 0.9916 00334 | -0.1293 40311 | 2.3470 49422 | 2.8223 15327 |
| .7006  | .9915 87325  | .1294 39470   | .3473 33399  | .3473 38246  |
| .7007  | .9915 74376  | .1295 38628   | .3475 12403  | .3475 13323  |
| .7008  | .9915 61418  | .1296 37785   | .3478 36433  | .3478 88339  |
| .7009  | .9915 48449  | .1297 36940   | .3481 76490  | .3481 63379  |
| 1.7010 | 0.9915 35470 | -0.1298 36095 | 2.3484 01575 | 2.8223 15204 |
| .7011  | .9915 22482  | .1299 35257   | .3487 45622  | .3487 27355  |
| .7012  | .9915 09483  | .1300 34399   | .3490 27818  | .3490 32253  |
| .7013  | .9914 96475  | .1301 33542   | .3493 10921  | .3493 57170  |
| .7014  | .9914 83456  | .1302 32698   | .3495 34169  | .3495 22116  |
| 1.7015 | 0.9914 70428 | -0.1303 31846 | 2.3498 77516 | 2.8223 15069 |
| .7016  | .9914 57390  | .1304 30992   | .3499 40627  | .3499 52091  |
| .7017  | .9914 44342  | .1305 30137   | .3504 23396  | .3504 17121  |
| .7018  | .9914 31284  | .1306 29281   | .3507 57190  | .3507 82130  |
| .7019  | .9914 18216  | .1307 28424   | .3510 10512  | .3510 37117  |
| 1.7020 | 0.9914 05138 | -0.1308 27565 | 2.3512 33830 | 2.8223 14922 |
| .7021  | .9913 92051  | .1309 26705   | .3515 77234  | .3515 77234  |
| .7022  | .9913 78953  | .1310 25848   | .3518 60235  | .3518 12297  |
| .7023  | .9913 65845  | .1311 24981   | .3521 44065  | .3521 07353  |
| .7024  | .9913 52728  | .1312 24115   | .3524 77917  | .3524 92126  |
| 1.7025 | 0.9913 39601 | -0.1313 23251 | 2.3527 10997 | 2.8223 14733 |
| .7026  | .9913 26463  | .1314 22384   | .3529 94505  | .3529 03668  |
| .7027  | .9913 13316  | .1315 21516   | .3533 78032  | .3533 68992  |
| .7028  | .9913 00159  | .1317 20647   | .3535 61308  | .3535 34324  |
| .7029  | .9912 86992  | .1317 19778   | .3538 45165  | .3538 99694  |
| 1.7030 | 0.9912 73815 | -0.1318 18904 | 2.3541 33743 | 2.8223 14533 |
| .7031  | .9912 60628  | .1319 18031   | .3544 12438  | .3544 50520  |
| .7032  | .9912 47431  | .1320 17157   | .3548 28104  | .3548 95973  |
| .7033  | .9912 34225  | .1321 16281   | .3549 79797  | .3549 61459  |
| .7034  | .9912 21008  | .1322 15403   | .3552 63517  | .3552 26971  |
| 1.7035 | 0.9912 07782 | -0.1323 14525 | 2.3555 47263 | 2.8223 14312 |
| .7036  | .9911 94545  | .1324 13645   | .3558 31035  | .3558 30821  |
| .7037  | .9911 81299  | .1325 12764   | .3561 14934  | .3561 25378  |
| .7038  | .9911 68043  | .1326 11881   | .3563 98660  | .3563 89304  |
| .7039  | .9911 54777  | .1327 10997   | .3566 82512  | .3566 54556  |
| 1.7040 | 0.9911 41501 | -0.1328 10112 | 2.3558 66391 | 2.8223 14060 |
| .7041  | .9911 28215  | .1329 09226   | .3572 50296  | .3572 86351  |
| .7042  | .9911 14919  | .1330 08338   | .3575 34228  | .3575 52090  |
| .7043  | .9911 01613  | .1331 07449   | .3578 18137  | .3578 17858  |
| .7044  | .9910 88297  | .1332 06556   | .3581 02172  | .3581 83554  |
| 1.7045 | 0.9910 74972 | -0.1333 05666 | 2.3583 86163 | 2.8223 13879 |
| .7046  | .9910 61636  | .1334 04773   | .3586 70222  | .3586 13331  |
| .7047  | .9910 48291  | .1335 03879   | .3589 54288  | .3589 81213  |
| .7048  | .9910 34935  | .1336 02983   | .3592 38375  | .3592 47122  |
| .7049  | .9910 21570  | .1337 02086   | .3595 22496  | .3595 13060  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.7050 | 0.9910 08195 | -0.1338 01187 | 2.6593 06641 | 2.8415 79027 |
| .7051  | .9909 94810  | .1339 00287   | .6600 90812  | .8418 45022  |
| .7052  | .9909 81415  | .1339 99386   | .6603 75010  | .8421 11045  |
| .7053  | .9909 68010  | .1340 98484   | .6606 59234  | .8423 77097  |
| .7054  | .9909 54595  | .1341 97580   | .6609 43485  | .8426 43177  |
| 1.7055 | 0.9909 41170 | -0.1342 96674 | 2.6612 27763 | 2.8429 09285 |
| .7056  | .9909 27736  | .1343 95768   | .6615 12067  | .8431 75422  |
| .7057  | .9909 14291  | .1344 94860   | .6617 96398  | .8434 41588  |
| .7058  | .9909 00837  | .1345 93951   | .6620 80755  | .8437 07782  |
| .7059  | .9908 87372  | .1346 93040   | .6623 65139  | .8439 74004  |
| 1.7060 | 0.9908 73898 | -0.1347 92128 | 2.6626 49550 | 2.8442 40255 |
| .7061  | .9908 60414  | .1348 91215   | .6629 33987  | .8445 06534  |
| .7062  | .9908 46920  | .1349 90300   | .6632 18451  | .8447 72841  |
| .7063  | .9908 33416  | .1350 89384   | .6635 02942  | .8450 39177  |
| .7064  | .9908 19902  | .1351 88467   | .6637 87459  | .8453 05542  |
| 1.7065 | 0.9908 06378 | -0.1352 87548 | 2.6640 72003 | 2.8455 71935 |
| .7066  | .9907 92845  | .1353 86628   | .6643 56573  | .8458 38356  |
| .7067  | .9907 79301  | .1354 85707   | .6646 41171  | .8461 04806  |
| .7068  | .9907 65747  | .1355 84784   | .6649 25794  | .8463 71285  |
| .7069  | .9907 52184  | .1356 83860   | .6652 10445  | .8466 37791  |
| 1.7070 | 0.9907 38611 | -0.1357 82935 | 2.6654 95122 | 2.8469 04327 |
| .7071  | .9907 25027  | .1358 82008   | .6657 79826  | .8471 70890  |
| .7072  | .9907 11434  | .1359 81080   | .6660 64556  | .8474 37483  |
| .7073  | .9906 97851  | .1360 80150   | .6663 49313  | .8477 04103  |
| .7074  | .9906 84218  | .1361 79219   | .6666 34097  | .8479 70753  |
| 1.7075 | 0.9906 70595 | -0.1362 78287 | 2.6669 18907 | 2.8482 37430 |
| .7076  | .9906 56963  | .1363 77353   | .6672 03744  | .8485 04136  |
| .7077  | .9906 43320  | .1364 76418   | .6674 88608  | .8487 70871  |
| .7078  | .9906 29667  | .1365 75482   | .6677 73499  | .8490 37634  |
| .7079  | .9906 16005  | .1366 74544   | .6680 58416  | .8493 04426  |
| 1.7080 | 0.9906 02332 | -0.1367 73605 | 2.6683 43360 | 2.8495 71246 |
| .7081  | .9905 88650  | .1368 72665   | .6686 28330  | .8498 38094  |
| .7082  | .9905 74958  | .1369 71723   | .6689 13327  | .8501 04971  |
| .7083  | .9905 61256  | .1370 70780   | .6691 98351  | .8503 71877  |
| .7084  | .9905 47544  | .1371 69835   | .6694 83402  | .8506 38811  |
| 1.7085 | 0.9905 33822 | -0.1372 68889 | 2.6697 68479 | 2.8509 05774 |
| .7086  | .9905 20090  | .1373 67942   | .6700 53583  | .8511 72765  |
| .7087  | .9905 06348  | .1374 66993   | .6703 38713  | .8514 39784  |
| .7088  | .9904 92597  | .1375 66043   | .6706 23871  | .8517 06832  |
| .7089  | .9904 78835  | .1376 65092   | .6709 09055  | .8519 73909  |
| 1.7090 | 0.9904 65064 | -0.1377 64139 | 2.6711 94265 | 2.8522 41014 |
| .7091  | .9904 51282  | .1378 63185   | .6714 79503  | .8525 08148  |
| .7092  | .9904 37491  | .1379 62229   | .6717 64767  | .8527 75310  |
| .7093  | .9904 23690  | .1380 61272   | .6720 50058  | .8530 42501  |
| .7094  | .9904 09879  | .1381 60314   | .6723 35376  | .8533 09720  |
| 1.7095 | 0.9903 96058 | -0.1382 59354 | 2.6726 20720 | 2.8535 76968 |
| .7096  | .9903 82227  | .1383 58393   | .6729 06091  | .8538 44244  |
| .7097  | .9903 68386  | .1384 57431   | .6731 91489  | .8541 11549  |
| .7098  | .9903 54535  | .1385 56467   | .6734 76913  | .8543 78883  |
| .7099  | .9903 40675  | .1386 55502   | .6737 62365  | .8546 46245  |

| $x$    | $\sin x$     | $\cos x$      | $\sinh x$    | $\cosh x$    |
|--------|--------------|---------------|--------------|--------------|
| 1.7100 | 0.9903 26804 | -0.1367 54535 | 2.6740 47343 | 2.6649 13635 |
| .7101  | .9903 12924  | .1368 53537   | .8743 33047  | .8621 81054  |
| .7102  | .9902 99053  | .1369 52538   | .8746 16879  | .8634 48502  |
| .7103  | .9902 85133  | .1390 51327   | .8749 04437  | .8657 15978  |
| .7104  | .9902 71223  | .1391 50355   | .8751 90022  | .8659 83483  |
| 1.7105 | 0.9902 57303 | -0.1392 49351 | 2.6751 76634 | 2.6662 51016 |
| .7106  | .9902 43373  | .1393 48706   | .8757 31272  | .8665 18579  |
| .7107  | .9902 29433  | .1394 47730   | .8760 48037  | .8667 86168  |
| .7108  | .9902 15484  | .1395 46752   | .8763 33823  | .8670 53787  |
| .7109  | .9902 01524  | .1396 45773   | .8766 18348  | .8673 21435  |
| 1.7110 | 0.9901 87554 | -0.1397 44792 | 2.6766 04094 | 2.6675 89111 |
| .7111  | .9901 73575  | .1398 43810   | .8771 68663  | .8678 56816  |
| .7112  | .9901 59586  | .1399 42827   | .8774 75665  | .8681 24549  |
| .7113  | .9901 45586  | .1400 41842   | .8777 61491  | .8683 92311  |
| .7114  | .9901 31577  | .1401 40856   | .8780 47343  | .8686 60101  |
| 1.7115 | 0.9901 17558 | -0.1402 39839 | 2.6783 33223 | 2.6689 27920 |
| .7116  | .9901 03529  | .1403 38880   | .8788 19129  | .8691 95766  |
| .7117  | .9900 89491  | .1404 37889   | .8789 05062  | .8694 63644  |
| .7118  | .9900 75442  | .1405 36897   | .8791 91022  | .8697 31549  |
| .7119  | .9900 61383  | .1406 35904   | .8794 77005  | .8699 99482  |
| 1.7120 | 0.9900 47315 | -0.1407 34910 | 2.6797 63022 | 2.6692 97444 |
| .7121  | .9900 33236  | .1408 33914   | .8800 49062  | .8705 35435  |
| .7122  | .9900 19148  | .1409 32916   | .8803 35129  | .8708 03454  |
| .7123  | .9900 05050  | .1410 31918   | .8806 21223  | .8710 71502  |
| .7124  | .9899 90941  | .1411 30917   | .8809 07343  | .8713 39578  |
| 1.7125 | 0.9899 76823 | -0.1412 29916 | 2.6811 93490 | 2.6616 07683 |
| .7126  | .9899 62695  | .1413 28913   | .8814 79665  | .8718 75817  |
| .7127  | .9899 48558  | .1414 27908   | .8817 65823  | .8721 43979  |
| .7128  | .9899 34410  | .1415 26902   | .8820 52093  | .8724 12170  |
| .7129  | .9899 20252  | .1416 25895   | .8823 38348  | .8726 80390  |
| 1.7130 | 0.9899 06085 | -0.1417 24887 | 2.6826 24629 | 2.6629 48638 |
| .7131  | .9898 91907  | .1418 23873   | .8829 10938  | .8732 16915  |
| .7132  | .9898 77720  | .1419 22865   | .8831 97273  | .8734 85220  |
| .7133  | .9898 63523  | .1420 21852   | .8834 83635  | .8737 53554  |
| .7134  | .9898 49316  | .1421 20838   | .8837 70024  | .8740 21917  |
| 1.7135 | 0.9898 35099 | -0.1422 19822 | 2.6840 56439 | 2.6642 90308 |
| .7136  | .9898 20872  | .1423 18805   | .8843 42822  | .8745 58728  |
| .7137  | .9898 06635  | .1424 17786   | .8846 29351  | .8748 27177  |
| .7138  | .9897 92388  | .1425 16766   | .8849 15847  | .8750 95654  |
| .7139  | .9897 78131  | .1426 15744   | .8852 02370  | .8753 64160  |
| 1.7140 | 0.9897 63865 | -0.1427 14722 | 2.6854 88920 | 2.6656 32694 |
| .7141  | .9897 49588  | .1428 13697   | .8857 75497  | .8759 01258  |
| .7142  | .9897 35302  | .1429 12671   | .8860 62100  | .8761 69849  |
| .7143  | .9897 21006  | .1430 11644   | .8863 48731  | .8764 38470  |
| .7144  | .9897 06700  | .1431 10616   | .8866 35388  | .8767 07119  |
| 1.7145 | 0.9896 92384 | -0.1432 09586 | 2.6869 22072 | 2.6669 75797 |
| .7146  | .9896 78058  | .1433 08554   | .8872 08783  | .8772 44504  |
| .7147  | .9896 63722  | .1434 07521   | .8874 95521  | .8775 13239  |
| .7148  | .9896 49376  | .1435 06487   | .8877 82286  | .8777 82003  |
| .7149  | .9896 35021  | .1436 05451   | .8880 69077  | .8780 50795  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.7150 | 0.9896 20655 | -0.1437 04414 | 2.6883 55896 | 2.8683 19617 |
| .7151  | .9896 06280  | .1438 03375   | .6886 42741  | .8685 88466  |
| .7152  | .9895 91895  | .1439 02335   | .6889 29614  | .8688 57345  |
| .7153  | .9895 77499  | .1440 01294   | .6892 16513  | .8691 26252  |
| .7154  | .9895 63094  | .1441 00251   | .6895 03439  | .8693 95188  |
| 1.7155 | 0.9895 48679 | -0.1441 98206 | 2.6897 90392 | 2.8696 64153 |
| .7156  | .9895 34255  | .1442 98160   | .6900 77372  | .8699 33146  |
| .7157  | .9895 19820  | .1443 97113   | .6903 64378  | .8702 02169  |
| .7158  | .9895 05375  | .1444 96064   | .6906 51412  | .8704 71219  |
| .7159  | .9894 90921  | .1445 95014   | .6909 38473  | .8707 40299  |
| 1.7160 | 0.9894 76456 | -0.1446 93963 | 2.6912 25560 | 2.8710 09407 |
| .7161  | .9894 61982  | .1447 92909   | .6915 12674  | .8712 78544  |
| .7162  | .9894 47498  | .1448 91855   | .6917 99816  | .8715 47710  |
| .7163  | .9894 33003  | .1449 90799   | .6920 86984  | .8718 16904  |
| .7164  | .9894 18499  | .1450 89742   | .6923 74179  | .8720 86127  |
| 1.7165 | 0.9894 03985 | -0.1451 88683 | 2.6926 61401 | 2.8723 55379 |
| .7166  | .9893 89462  | .1452 87622   | .6929 48650  | .8726 24659  |
| .7167  | .9893 74928  | .1453 86561   | .6932 35926  | .8728 93968  |
| .7168  | .9893 60384  | .1454 85497   | .6935 23229  | .8731 63306  |
| .7169  | .9893 45831  | .1455 84433   | .6938 10559  | .8734 32673  |
| 1.7170 | 0.9893 31267 | -0.1456 83366 | 2.6940 97916 | 2.8737 02069 |
| .7171  | .9893 16694  | .1457 82299   | .6943 85299  | .8739 71493  |
| .7172  | .9893 02111  | .1458 81230   | .6946 72710  | .8742 40946  |
| .7173  | .9892 87518  | .1459 80159   | .6949 60147  | .8745 10427  |
| .7174  | .9892 72915  | .1460 79087   | .6952 47612  | .8747 79938  |
| 1.7175 | 0.9892 58302 | -0.1461 78014 | 2.6955 35103 | 2.8750 49477 |
| .7176  | .9892 43679  | .1462 76939   | .6958 22622  | .8753 19045  |
| .7177  | .9892 29047  | .1463 75863   | .6961 10167  | .8755 88641  |
| .7178  | .9892 14404  | .1464 74785   | .6963 97740  | .8758 58267  |
| .7179  | .9891 99752  | .1465 73706   | .6966 85339  | .8761 27921  |
| 1.7180 | 0.9891 85089 | -0.1466 72625 | 2.6969 72965 | 2.8763 97604 |
| .7181  | .9891 70417  | .1467 71543   | .6972 60618  | .8766 67315  |
| .7182  | .9891 55735  | .1468 70459   | .6975 48289  | .8769 37056  |
| .7183  | .9891 41043  | .1469 69374   | .6978 36006  | .8772 06825  |
| .7184  | .9891 26341  | .1470 68287   | .6981 23740  | .8774 76623  |
| 1.7185 | 0.9891 11629 | -0.1471 67199 | 2.6984 11501 | 2.8777 46450 |
| .7186  | .9890 96908  | .1472 66109   | .6986 99289  | .8780 16305  |
| .7187  | .9890 82176  | .1473 65018   | .6989 87104  | .8782 86190  |
| .7188  | .9890 67435  | .1474 63926   | .6992 74947  | .8785 56103  |
| .7189  | .9890 52683  | .1475 62832   | .6995 62816  | .8788 26045  |
| 1.7190 | 0.9890 37922 | -0.1476 61736 | 2.6998 50712 | 2.8790 96015 |
| .7191  | .9890 23151  | .1477 60639   | .7001 38635  | .8793 66015  |
| .7192  | .9890 08370  | .1478 59541   | .7004 26585  | .8796 36043  |
| .7193  | .9889 93579  | .1479 58441   | .7007 14562  | .8799 06100  |
| .7194  | .9889 78778  | .1480 57340   | .7010 02566  | .8801 76186  |
| 1.7195 | 0.9889 63968 | -0.1481 56237 | 2.7012 90597 | 2.8804 46301 |
| .7196  | .9889 49147  | .1482 55132   | .7015 78655  | .8807 16444  |
| .7197  | .9889 34317  | .1483 54027   | .7018 66741  | .8809 86616  |
| .7198  | .9889 19476  | .1484 52919   | .7021 54853  | .8812 56817  |
| .7199  | .9889 04626  | .1485 51811   | .7024 42992  | .8815 27047  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.7200 | 0.9888 89766 | -0.1486 50700 | 2.7027 31158 | 2.8817 97306 |
| .7201  | .9888 74896  | .1487 49589   | .7030 19351  | .8820 87594  |
| .7202  | .9888 60016  | .1488 48475   | .7033 07572  | .8823 37910  |
| .7203  | .9888 45126  | .1489 47361   | .7035 95319  | .8826 08255  |
| .7204  | .9888 30227  | .1490 46244   | .7038 94093  | .8828 78629  |
| 1.7205 | 0.9888 15317 | -0.1491 45127 | 2.7041 72395 | 2.8831 49032 |
| .7206  | .9888 00398  | .1492 44007   | .7044 60723  | .8834 19464  |
| .7207  | .9887 85468  | .1493 42887   | .7047 49079  | .8836 89924  |
| .7208  | .9887 70529  | .1494 41764   | .7050 37451  | .8839 60413  |
| .7209  | .9887 55580  | .1495 40641   | .7053 25871  | .8842 30932  |
| 1.7210 | 0.9887 40621 | -0.1496 39516 | 2.7056 14307 | 2.8845 01479 |
| .7211  | .9887 25652  | .1497 38389   | .7059 02771  | .8847 72054  |
| .7212  | .9887 10673  | .1498 37261   | .7061 91262  | .8850 42659  |
| .7213  | .9886 95685  | .1499 36131   | .7064 79780  | .8853 13293  |
| .7214  | .9886 80686  | .1500 35000   | .7067 68324  | .8855 83955  |
| 1.7215 | 0.9886 65678 | -0.1501 33867 | 2.7070 56896 | 2.8858 54646 |
| .7216  | .9886 50659  | .1502 32733   | .7073 45495  | .8861 25366  |
| .7217  | .9886 35631  | .1503 31597   | .7076 34121  | .8863 96115  |
| .7218  | .9886 20593  | .1504 30460   | .7079 22775  | .8866 66893  |
| .7219  | .9886 05545  | .1505 29321   | .7082 11455  | .8869 37700  |
| 1.7220 | 0.9885 90487 | -0.1506 28181 | 2.7085 00162 | 2.8872 08536 |
| .7221  | .9885 75419  | .1507 27039   | .7087 88896  | .8874 79400  |
| .7222  | .9885 60342  | .1508 25896   | .7090 77658  | .8877 50293  |
| .7223  | .9885 45254  | .1509 24752   | .7093 66447  | .8880 21216  |
| .7224  | .9885 30157  | .1510 23605   | .7096 55262  | .8882 92167  |
| 1.7225 | 0.9885 15049 | -0.1511 22458 | 2.7099 44105 | 2.8885 63147 |
| .7226  | .9884 99932  | .1512 21308   | .7102 32975  | .8888 34156  |
| .7227  | .9884 84805  | .1513 20158   | .7105 21872  | .8891 05193  |
| .7228  | .9884 69668  | .1514 19005   | .7108 10796  | .8893 76260  |
| .7229  | .9884 54521  | .1515 17851   | .7110 99747  | .8896 47355  |
| 1.7230 | 0.9884 39365 | -0.1516 16696 | 2.7113 88725 | 2.8899 18430 |
| .7231  | .9884 24198  | .1517 15539   | .7116 77731  | .8901 89633  |
| .7232  | .9884 09021  | .1518 14381   | .7119 66763  | .8904 60815  |
| .7233  | .9883 93835  | .1519 13221   | .7122 55823  | .8907 32027  |
| .7234  | .9883 78639  | .1520 12060   | .7125 44910  | .8910 03267  |
| 1.7235 | 0.9883 63433 | -0.1521 10897 | 2.7128 34024 | 2.8912 74535 |
| .7236  | .9883 48217  | .1522 09732   | .7131 23165  | .8915 45833  |
| .7237  | .9883 32991  | .1523 08567   | .7134 12333  | .8918 17160  |
| .7238  | .9883 17755  | .1524 07399   | .7137 01528  | .8920 88516  |
| .7239  | .9883 02509  | .1525 06230   | .7139 90750  | .8923 59900  |
| 1.7240 | 0.9882 87254 | -0.1526 05060 | 2.7142 80000 | 2.8926 31314 |
| .7241  | .9882 71988  | .1527 03888   | .7145 69277  | .8929 02756  |
| .7242  | .9882 56713  | .1528 02714   | .7148 58581  | .8931 74228  |
| .7243  | .9882 41428  | .1529 01539   | .7151 47912  | .8934 45728  |
| .7244  | .9882 26133  | .1530 00362   | .7154 37270  | .8937 17257  |
| 1.7245 | 0.9882 10828 | -0.1530 99184 | 2.7157 26655 | 2.8939 88816 |
| .7246  | .9881 95513  | .1531 98004   | .7160 16067  | .8942 60403  |
| .7247  | .9881 80188  | .1532 96823   | .7163 05507  | .8945 32019  |
| .7248  | .9881 64853  | .1533 95640   | .7165 94974  | .8948 03664  |
| .7249  | .9881 49509  | .1534 94456   | .7168 84468  | .8950 75338  |



| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.7250 | 0.9881 34155 | -0.1535 93270 | 2.7171 73989 | 2.8953 47041 |
| .7251  | .9381 18790  | .1536 92083   | .7174 63537  | .8956 18773  |
| .7252  | .9381 03416  | .1537 90394   | .7177 53113  | .8958 90533  |
| .7253  | .9380 38032  | .1538 89704   | .7180 42715  | .8961 62323  |
| .7254  | .9380 72638  | .1539 88512   | .7183 32345  | .8964 34142  |
| 1.7255 | 0.9380 57234 | -0.1540 87318 | 2.7186 22002 | 2.8967 05990 |
| .7256  | .9380 41821  | .1541 86123   | .7189 11686  | .8969 77866  |
| .7257  | .9380 26397  | .1542 84927   | .7192 01398  | .8972 49772  |
| .7258  | .9380 10964  | .1543 83728   | .7194 91136  | .8975 21707  |
| .7259  | .9379 95520  | .1544 82529   | .7197 80902  | .8977 93670  |
| 1.7260 | 0.9379 80067 | -0.1545 81328 | 2.7200 70695 | 2.8980 65663 |
| .7261  | .9379 64604  | .1546 80125   | .7203 60515  | .8983 37684  |
| .7262  | .9379 49131  | .1547 78920   | .7206 50363  | .8986 09735  |
| .7263  | .9379 33648  | .1548 77715   | .7209 40237  | .8988 81814  |
| .7264  | .9379 18156  | .1549 76507   | .7212 30139  | .8991 53923  |
| 1.7265 | 0.9379 02653 | -0.1550 75298 | 2.7215 20068 | 2.8994 26061 |
| .7266  | .9378 87141  | .1551 74088   | .7218 10024  | .8996 98227  |
| .7267  | .9378 71618  | .1552 72876   | .7221 00008  | .8999 70423  |
| .7268  | .9378 56086  | .1553 71662   | .7223 90018  | .9002 42647  |
| .7269  | .9378 40544  | .1554 70447   | .7226 80056  | .9005 14901  |
| 1.7270 | 0.9378 24992 | -0.1555 69230 | 2.7229 70121 | 2.9007 37183 |
| .7271  | .9378 09430  | .1556 68012   | .7232 60214  | .9010 59495  |
| .7272  | .9377 93858  | .1557 66792   | .7235 50333  | .9013 31835  |
| .7273  | .9377 78277  | .1558 65571   | .7238 40480  | .9016 04205  |
| .7274  | .9377 62685  | .1559 64348   | .7241 30654  | .9018 76603  |
| 1.7275 | 0.9377 47084 | -0.1560 63123 | 2.7244 20855 | 2.9021 49031 |
| .7276  | .9377 31473  | .1561 61897   | .7247 11084  | .9024 21487  |
| .7277  | .9377 15851  | .1562 60669   | .7250 01340  | .9026 93973  |
| .7278  | .9377 00220  | .1563 59440   | .7252 91623  | .9029 66488  |
| .7279  | .9376 84580  | .1564 58210   | .7255 81933  | .9032 39031  |
| 1.7280 | 0.9376 68929 | -0.1565 56977 | 2.7258 72270 | 2.9035 11604 |
| .7281  | .9376 53268  | .1566 55743   | .7261 62635  | .9037 84206  |
| .7282  | .9376 37598  | .1567 54508   | .7264 53027  | .9040 56837  |
| .7283  | .9376 21917  | .1568 53271   | .7267 43447  | .9043 29496  |
| .7284  | .9376 06227  | .1569 52032   | .7270 33893  | .9046 02185  |
| 1.7285 | 0.9375 90527 | -0.1570 50792 | 2.7273 24367 | 2.9048 74903 |
| .7286  | .9375 74817  | .1571 49550   | .7276 14868  | .9051 47650  |
| .7287  | .9375 59097  | .1572 48307   | .7279 05397  | .9054 20426  |
| .7288  | .9375 43367  | .1573 47062   | .7281 95952  | .9056 93231  |
| .7289  | .9375 27628  | .1574 45816   | .7284 86535  | .9059 66065  |
| 1.7290 | 0.9375 11878 | -0.1575 44568 | 2.7287 77145 | 2.9062 38928 |
| .7291  | .9374 96119  | .1576 43318   | .7290 67783  | .9065 11821  |
| .7292  | .9374 80349  | .1577 42067   | .7293 58448  | .9067 84742  |
| .7293  | .9374 64570  | .1578 40814   | .7296 49140  | .9070 57692  |
| .7294  | .9374 48781  | .1579 39560   | .7299 39859  | .9073 30672  |
| 1.7295 | 0.9374 32982 | -0.1580 38304 | 2.7302 30606 | 2.9076 03680 |
| .7296  | .9374 17174  | .1581 37046   | .7305 21380  | .9078 76718  |
| .7297  | .9374 01355  | .1582 35787   | .7308 12181  | .9081 49785  |
| .7298  | .9373 85526  | .1583 34527   | .7311 03010  | .9084 22880  |
| .7299  | .9373 69688  | .1584 33264   | .7313 93866  | .9086 96005  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.7300 | 0.9873 53840 | -0.1585 32001 | 2.7316 84749 | 2.9089 69159 |
| .7301  | .9873 37982  | .1586 30735   | .7319 75660  | .9092 42342  |
| .7302  | .9873 22114  | .1587 29463   | .7322 66598  | .9095 15554  |
| .7303  | .9873 06236  | .1588 28200   | .7325 57563  | .9097 88796  |
| .7304  | .9872 90348  | .1589 26929   | .7328 48555  | .9100 62066  |
| 1.7305 | 0.9872 74450 | -0.1590 25658 | 2.7331 39575 | 2.9103 35365 |
| .7306  | .9872 58543  | .1591 24384   | .7334 30623  | .9106 08694  |
| .7307  | .9872 42625  | .1592 23109   | .7337 21697  | .9108 82051  |
| .7308  | .9872 26698  | .1593 21833   | .7340 12799  | .9111 55438  |
| .7309  | .9872 10761  | .1594 20555   | .7343 03928  | .9114 28854  |
| 1.7310 | 0.9871 94814 | -0.1595 19275 | 2.7346 95085 | 2.9117 02299 |
| .7311  | .9871 78857  | .1596 17994   | .7348 86269  | .9119 75773  |
| .7312  | .9871 62890  | .1597 16711   | .7351 77480  | .9122 49276  |
| .7313  | .9871 46914  | .1598 15426   | .7354 68718  | .9125 22808  |
| .7314  | .9871 30927  | .1599 14140   | .7357 59984  | .9127 96370  |
| 1.7315 | 0.9871 14931 | -0.1600 12853 | 2.7360 51278 | 2.9130 69960 |
| .7316  | .9870 98925  | .1601 11563   | .7363 42598  | .9133 43580  |
| .7317  | .9870 82909  | .1602 10272   | .7366 33946  | .9136 17229  |
| .7318  | .9870 66883  | .1603 08980   | .7369 25322  | .9138 90907  |
| .7319  | .9870 50847  | .1604 07686   | .7372 16725  | .9141 64614  |
| 1.7320 | 0.9870 34801 | -0.1605 06390 | 2.7375 08155 | 2.9144 38350 |
| .7321  | .9870 18746  | .1606 05093   | .7377 99612  | .9147 12116  |
| .7322  | .9870 02680  | .1607 03794   | .7380 91097  | .9149 85910  |
| .7323  | .9869 86605  | .1608 02493   | .7383 82610  | .9152 59734  |
| .7324  | .9869 70520  | .1609 01191   | .7386 74149  | .9155 33587  |
| 1.7325 | 0.9869 54425 | -0.1609 99887 | 2.7389 65716 | 2.9158 07469 |
| .7326  | .9869 38320  | .1610 98582   | .7392 57311  | .9160 81380  |
| .7327  | .9869 22205  | .1611 97275   | .7395 48932  | .9163 55320  |
| .7328  | .9869 06080  | .1612 95966   | .7398 40582  | .9166 29290  |
| .7329  | .9868 89946  | .1613 94656   | .7401 32258  | .9169 03288  |
| 1.7330 | 0.9868 73801 | -0.1614 93344 | 2.7404 23962 | 2.9171 77316 |
| .7331  | .9868 57647  | .1615 92031   | .7407 15694  | .9174 51373  |
| .7332  | .9868 41483  | .1616 90716   | .7410 07453  | .9177 25459  |
| .7333  | .9868 25309  | .1617 89399   | .7412 99239  | .9179 99575  |
| .7334  | .9868 09125  | .1618 88081   | .7415 91053  | .9182 73719  |
| 1.7335 | 0.9867 92931 | -0.1619 86761 | 2.7418 82894 | 2.9185 47893 |
| .7336  | .9867 76728  | .1620 85440   | .7421 74762  | .9188 22096  |
| .7337  | .9867 60514  | .1621 84116   | .7424 66658  | .9190 96328  |
| .7338  | .9867 44291  | .1622 82792   | .7427 58581  | .9193 70589  |
| .7339  | .9867 28058  | .1623 81465   | .7430 50532  | .9196 44879  |
| 1.7340 | 0.9867 11815 | -0.1624 80137 | 2.7433 42510 | 2.9199 19199 |
| .7341  | .9866 95562  | .1625 78808   | .7436 34516  | .9201 93548  |
| .7342  | .9866 79299  | .1626 77476   | .7439 26549  | .9204 67926  |
| .7343  | .9866 63026  | .1627 76143   | .7442 18610  | .9207 42333  |
| .7344  | .9866 46744  | .1628 74809   | .7445 10698  | .9210 16770  |
| 1.7345 | 0.9866 30451 | -0.1629 73473 | 2.7448 02813 | 2.9212 91235 |
| .7346  | .9866 14149  | .1630 72135   | .7450 94956  | .9215 65730  |
| .7347  | .9865 97837  | .1631 70796   | .7453 87126  | .9218 40254  |
| .7348  | .9865 81515  | .1632 69455   | .7456 79324  | .9221 14808  |
| .7349  | .9865 65183  | .1633 68112   | .7459 71549  | .9223 89390  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.7350 | 0.9365 48841 | -0.1634 66768 | 2.7462 63802 | 2.9226 64002 |
| .7351  | .9865 32439  | .1635 65422   | .7465 56082  | .9229 38643  |
| .7352  | .9865 16128  | .1636 64074   | .7468 48389  | .9232 13313  |
| .7353  | .9864 99757  | .1637 62725   | .7471 40725  | .9234 88013  |
| .7354  | .9864 83375  | .1638 61374   | .7474 33087  | .9237 62741  |
| 1.7355 | 0.9864 66984 | -0.1639 60022 | 2.7477 25477 | 2.9240 37499 |
| .7356  | .9864 50583  | .1640 58667   | .7480 17895  | .9243 12287  |
| .7357  | .9864 34173  | .1641 57312   | .7483 10340  | .9245 87103  |
| .7358  | .9864 17752  | .1642 55954   | .7486 02812  | .9248 61949  |
| .7359  | .9864 01321  | .1643 54595   | .7488 95312  | .9251 36823  |
| 1.7360 | 0.9863 94881 | -0.1644 53235 | 2.7491 87839 | 2.9254 11728 |
| .7361  | .9863 68431  | .1645 51872   | .7494 80394  | .9256 86661  |
| .7362  | .9863 51971  | .1646 50508   | .7497 72977  | .9259 61624  |
| .7363  | .9863 35501  | .1647 49143   | .7500 65587  | .9262 36616  |
| .7364  | .9863 19021  | .1648 47775   | .7503 58224  | .9265 11637  |
| 1.7365 | 0.9863 02531 | -0.1649 46406 | 2.7506 50889 | 2.9267 86687 |
| .7366  | .9862 86032  | .1650 45036   | .7509 43581  | .9270 61767  |
| .7367  | .9862 69522  | .1651 43664   | .7512 36301  | .9273 36876  |
| .7368  | .9862 53003  | .1652 42290   | .7515 29049  | .9276 12014  |
| .7369  | .9862 36474  | .1653 40914   | .7518 21824  | .9278 87182  |
| 1.7370 | 0.9862 19935 | -0.1654 39537 | 2.7521 14626 | 2.9281 62379 |
| .7371  | .9862 03586  | .1655 38158   | .7524 07456  | .9284 37605  |
| .7372  | .9861 86827  | .1656 36778   | .7527 00314  | .9287 12860  |
| .7373  | .9861 70258  | .1657 35396   | .7529 93199  | .9289 88145  |
| .7374  | .9861 53680  | .1658 34012   | .7532 86111  | .9292 63459  |
| 1.7375 | 0.9861 37092 | -0.1659 32626 | 2.7535 79051 | 2.9295 38802 |
| .7376  | .9861 20493  | .1660 31239   | .7538 72019  | .9298 14175  |
| .7377  | .9861 03885  | .1661 29850   | .7541 65014  | .9300 89576  |
| .7378  | .9860 87267  | .1662 28460   | .7544 58037  | .9303 65008  |
| .7379  | .9860 70640  | .1663 27068   | .7547 51087  | .9306 40468  |
| 1.7380 | 0.9860 54002 | -0.1664 25674 | 2.7550 44165 | 2.9309 15958 |
| .7381  | .9860 37355  | .1665 24279   | .7553 37270  | .9311 91477  |
| .7382  | .9860 20697  | .1666 22882   | .7556 30403  | .9314 67025  |
| .7383  | .9860 04030  | .1667 21483   | .7559 23564  | .9317 42603  |
| .7384  | .9859 87353  | .1668 20082   | .7562 16752  | .9320 18210  |
| 1.7385 | 0.9859 70666 | -0.1669 18680 | 2.7565 09968 | 2.9322 93846 |
| .7386  | .9859 53969  | .1670 17277   | .7568 03211  | .9325 69512  |
| .7387  | .9859 37263  | .1671 15871   | .7570 96481  | .9328 45207  |
| .7388  | .9859 20546  | .1672 14464   | .7573 89780  | .9331 20931  |
| .7389  | .9859 03820  | .1673 13055   | .7576 83106  | .9333 96685  |
| 1.7390 | 0.9858 87083 | -0.1674 11645 | 2.7579 76459 | 2.9336 72468 |
| .7391  | .9858 70337  | .1675 10233   | .7582 69840  | .9339 48280  |
| .7392  | .9858 53581  | .1676 08819   | .7585 63249  | .9342 24122  |
| .7393  | .9858 36816  | .1677 07403   | .7588 56685  | .9344 99993  |
| .7394  | .9858 20040  | .1678 05986   | .7591 50149  | .9347 75893  |
| 1.7395 | 0.9858 03254 | -0.1679 04567 | 2.7594 43640 | 2.9350 51823 |
| .7396  | .9857 86459  | .1680 03147   | .7597 37159  | .9353 27782  |
| .7397  | .9857 69654  | .1681 01725   | .7600 30706  | .9356 03770  |
| .7398  | .9857 52839  | .1682 00301   | .7603 24280  | .9358 79788  |
| .7399  | .9857 36014  | .1682 98875   | .7606 17882  | .9361 55835  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.7400 | 0.9857 19179 | -0.1683 97448 | 2.7609 11511 | 2.8324 31912 |
| .7401  | .9857 02334  | .1684 96019   | .7612 05168  | .8327 08017  |
| .7402  | .9856 85480  | .1685 94588   | .7614 98253  | .8329 84153  |
| .7403  | .9856 68615  | .1686 93156   | .7617 92565  | .8372 60317  |
| .7404  | .9856 51741  | .1687 91722   | .7620 86305  | .8375 36511  |
| 1.7405 | 0.9856 34857 | -0.1688 90286 | 2.7623 80072 | 2.8378 12735 |
| .7406  | .9856 17963  | .1689 88849   | .7626 73367  | .8380 88937  |
| .7407  | .9856 01059  | .1690 87410   | .7629 67690  | .8383 65269  |
| .7408  | .9855 84145  | .1691 85969   | .7632 61540  | .8386 41591  |
| .7409  | .9855 67222  | .1692 84527   | .7635 55418  | .8389 17922  |
| 1.7410 | 0.9855 50289 | -0.1693 83083 | 2.7638 49324 | 2.8391 94292 |
| .7411  | .9855 33345  | .1694 81637   | .7641 43257  | .8394 70691  |
| .7412  | .9855 16392  | .1695 80189   | .7644 37218  | .8397 47120  |
| .7413  | .9854 99429  | .1696 78740   | .7647 31207  | .8400 23579  |
| .7414  | .9854 82456  | .1697 77289   | .7650 25223  | .8403 00067  |
| 1.7415 | 0.9854 65474 | -0.1698 75837 | 2.7653 19267 | 2.8406 76584 |
| .7416  | .9854 48481  | .1699 74382   | .7656 13338  | .8408 53131  |
| .7417  | .9854 31479  | .1700 72926   | .7659 07437  | .8411 29707  |
| .7418  | .9854 14467  | .1701 71469   | .7662 01564  | .8414 06312  |
| .7419  | .9853 97445  | .1702 70009   | .7664 95718  | .8416 82947  |
| 1.7420 | 0.9853 80413 | -0.1703 68548 | 2.7667 89901 | 2.8419 59611 |
| .7421  | .9853 63371  | .1704 67085   | .7670 84110  | .8422 36305  |
| .7422  | .9853 46319  | .1705 65621   | .7673 78348  | .8425 13028  |
| .7423  | .9853 29258  | .1706 64155   | .7676 72613  | .8427 89781  |
| .7424  | .9853 12186  | .1707 62687   | .7679 66906  | .8430 66563  |
| 1.7425 | 0.9852 95105 | -0.1708 61217 | 2.7682 61226 | 2.8433 43374 |
| .7426  | .9852 78014  | .1709 59746   | .7685 55574  | .8436 20215  |
| .7427  | .9852 60913  | .1710 58273   | .7688 49950  | .8438 97035  |
| .7428  | .9852 43803  | .1711 56798   | .7691 44354  | .8441 73985  |
| .7429  | .9852 26682  | .1712 55321   | .7694 38785  | .8444 50914  |
| 1.7430 | 0.9852 09552 | -0.1713 53843 | 2.7697 33244 | 2.8447 27873 |
| .7431  | .9851 92411  | .1714 52363   | .7700 27731  | .8450 04861  |
| .7432  | .9851 75261  | .1715 50882   | .7703 22245  | .8452 81878  |
| .7433  | .9851 58101  | .1716 49398   | .7706 16787  | .8455 58925  |
| .7434  | .9851 40931  | .1717 47913   | .7709 11357  | .8458 36001  |
| 1.7435 | 0.9851 23751 | -0.1718 46427 | 2.7712 05954 | 2.8461 13107 |
| .7436  | .9851 06562  | .1719 44938   | .7715 00579  | .8463 90243  |
| .7437  | .9850 89362  | .1720 43448   | .7717 95232  | .8466 67407  |
| .7438  | .9850 72153  | .1721 41956   | .7720 89913  | .8469 44602  |
| .7439  | .9850 54934  | .1722 40462   | .7723 84621  | .8472 21825  |
| 1.7440 | 0.9850 37705 | -0.1723 38967 | 2.7726 79357 | 2.8474 99079 |
| .7441  | .9850 20466  | .1724 37470   | .7729 74121  | .8477 76361  |
| .7442  | .9850 03218  | .1725 35971   | .7732 68913  | .8480 53673  |
| .7443  | .9849 85959  | .1726 34471   | .7735 63732  | .8483 31015  |
| .7444  | .9849 68691  | .1727 32968   | .7738 58579  | .8486 08386  |
| 1.7445 | 0.9849 51412 | -0.1728 31464 | 2.7741 53454 | 2.8488 85787 |
| .7446  | .9849 34124  | .1729 29959   | .7744 48356  | .8491 63217  |
| .7447  | .9849 16826  | .1730 28451   | .7747 43286  | .8494 40676  |
| .7448  | .9848 99519  | .1731 26942   | .7750 38244  | .8497 18166  |
| .7449  | .9848 82201  | .1732 25431   | .7753 33230  | .8499 95684  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.7450 | 0.9848 64874 | -0.1733 23918 | 2.7756 28243 | 2.9502 73232 |
| .7451  | .9848 47536  | .1734 22404   | .7759 23284  | .9505 50610  |
| .7452  | .9848 30129  | .1735 20888   | .7762 18353  | .9508 23417  |
| .7453  | .9848 12832  | .1736 19370   | .7765 13450  | .9511 06053  |
| .7454  | .9847 95465  | .1737 17850   | .7768 08575  | .9513 83720  |
| 1.7455 | 0.9847 78089 | -0.1738 16329 | 2.7771 03727 | 2.9516 61415 |
| .7456  | .9847 60702  | .1739 14806   | .7773 98907  | .9519 39140  |
| .7457  | .9847 43306  | .1740 13281   | .7776 94115  | .9522 16895  |
| .7458  | .9847 25899  | .1741 11755   | .7779 89350  | .9524 94679  |
| .7459  | .9847 08433  | .1742 10226   | .7782 84614  | .9527 72493  |
| 1.7460 | 0.9846 91057 | -0.1743 08696 | 2.7785 79905 | 2.9530 50336 |
| .7461  | .9846 73622  | .1744 07165   | .7788 75224  | .9533 28209  |
| .7462  | .9846 56176  | .1745 05631   | .7791 70570  | .9536 06111  |
| .7463  | .9846 38720  | .1746 04096   | .7794 65945  | .9539 84043  |
| .7464  | .9846 21255  | .1747 02559   | .7797 61347  | .9541 62004  |
| 1.7465 | 0.9846 03780 | -0.1748 01020 | 2.7800 56777 | 2.9544 39995 |
| .7466  | .9845 86295  | .1748 99480   | .7803 52235  | .9547 18016  |
| .7467  | .9845 68800  | .1749 97937   | .7806 47721  | .9549 96066  |
| .7468  | .9845 51295  | .1750 96393   | .7809 43234  | .9552 74145  |
| .7469  | .9845 33781  | .1751 94848   | .7812 38776  | .9555 52254  |
| 1.7470 | 0.9845 16256 | -0.1752 93300 | 2.7815 34345 | 2.9558 30383 |
| .7471  | .9844 98722  | .1753 91751   | .7818 29942  | .9561 08561  |
| .7472  | .9844 81178  | .1754 90200   | .7821 25567  | .9563 86759  |
| .7473  | .9844 63624  | .1755 88647   | .7824 21219  | .9566 64986  |
| .7474  | .9844 46060  | .1756 87093   | .7827 16900  | .9569 43245  |
| 1.7475 | 0.9844 28487 | -0.1757 85536 | 2.7830 12608 | 2.9572 21530 |
| .7476  | .9844 10903  | .1758 83978   | .7833 08344  | .9574 99846  |
| .7477  | .9843 93310  | .1759 82419   | .7836 04108  | .9577 78191  |
| .7478  | .9843 75707  | .1760 80857   | .7838 99900  | .9580 56567  |
| .7479  | .9843 58094  | .1761 79294   | .7841 95719  | .9583 34971  |
| 1.7480 | 0.9843 40471 | -0.1762 77729 | 2.7844 91567 | 2.9586 13406 |
| .7481  | .9843 22838  | .1763 76162   | .7847 87442  | .9588 91870  |
| .7482  | .9843 05196  | .1764 74593   | .7850 83345  | .9591 70363  |
| .7483  | .9842 87543  | .1765 73023   | .7853 79276  | .9594 48886  |
| .7484  | .9842 69981  | .1766 71451   | .7856 75235  | .9597 27439  |
| 1.7485 | 0.9842 52209 | -0.1767 69877 | 2.7859 71221 | 2.9600 06021 |
| .7486  | .9842 34527  | .1768 68301   | .7862 67236  | .9602 84633  |
| .7487  | .9842 16835  | .1769 66724   | .7865 63278  | .9605 63275  |
| .7488  | .9841 99134  | .1770 65144   | .7868 59349  | .9608 41943  |
| .7489  | .9841 81422  | .1771 63563   | .7871 55447  | .9611 20647  |
| 1.7490 | 0.9841 63701 | -0.1772 61981 | 2.7874 51573 | 2.9613 99377 |
| .7491  | .9841 45970  | .1773 60396   | .7877 47727  | .9616 78137  |
| .7492  | .9841 28229  | .1774 58810   | .7880 43908  | .9619 56927  |
| .7493  | .9841 10478  | .1775 57222   | .7883 40118  | .9622 35746  |
| .7494  | .9840 92717  | .1776 55632   | .7886 36355  | .9625 14595  |
| 1.7495 | 0.9840 74947 | -0.1777 54040 | 2.7889 32621 | 2.9627 93473 |
| .7496  | .9840 57167  | .1778 52447   | .7892 28914  | .9630 72381  |
| .7497  | .9840 39376  | .1779 50852   | .7895 25235  | .9633 51319  |
| .7498  | .9840 21576  | .1780 49255   | .7898 21584  | .9636 30286  |
| .7499  | .9840 03767  | .1781 47656   | .7901 17961  | .9639 09283  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.7500 | 0.9839 85947 | -0.1782 46056 | 2.7904 14366 | 2.9641 98310 |
| .7501  | .9839 68117  | .1783 44453   | .7907 10799  | .9644 67363  |
| .7502  | .9839 50278  | .1784 42849   | .7910 07260  | .9647 46452  |
| .7503  | .9839 32429  | .1785 41243   | .7913 03748  | .9650 25567  |
| .7504  | .9839 14570  | .1786 39636   | .7916 00265  | .9653 04713  |
| 1.7505 | 0.9838 96701 | -0.1787 38026 | 2.7918 96809 | 2.9655 83887 |
| .7506  | .9838 78822  | .1788 36415   | .7921 93382  | .9658 63092  |
| .7507  | .9838 60934  | .1789 34802   | .7924 89982  | .9661 42326  |
| .7508  | .9838 43035  | .1790 33187   | .7927 86610  | .9664 21590  |
| .7509  | .9838 25127  | .1791 31571   | .7930 83266  | .9667 00893  |
| 1.7510 | 0.9838 07209 | -0.1792 29952 | 2.7933 79950 | 2.9669 80207 |
| .7511  | .9837 89281  | .1793 28332   | .7936 76662  | .9672 59559  |
| .7512  | .9837 71343  | .1794 26710   | .7939 73402  | .9675 38942  |
| .7513  | .9837 53396  | .1795 25086   | .7942 70170  | .9678 18354  |
| .7514  | .9837 35438  | .1796 23461   | .7945 66966  | .9680 97796  |
| 1.7515 | 0.9837 17471 | -0.1797 21833 | 2.7948 63750 | 2.9663 77268 |
| .7516  | .9836 99494  | .1798 20204   | .7951 60641  | .9686 56769  |
| .7517  | .9836 81507  | .1799 18573   | .7954 57521  | .9689 36300  |
| .7518  | .9836 63510  | .1800 16941   | .7957 54429  | .9692 15860  |
| .7519  | .9836 45503  | .1801 15306   | .7960 51364  | .9694 95451  |
| 1.7520 | 0.9836 27487 | -0.1802 13670 | 2.7963 48328 | 2.9697 75071 |
| .7521  | .9836 09461  | .1803 12032   | .7966 45319  | .9700 54720  |
| .7522  | .9835 91425  | .1804 10392   | .7969 42339  | .9703 34400  |
| .7523  | .9835 73379  | .1805 08750   | .7972 39386  | .9706 14109  |
| .7524  | .9835 55323  | .1806 07106   | .7975 36461  | .9708 93848  |
| 1.7525 | 0.9835 37257 | -0.1807 05461 | 2.7978 33565 | 2.9711 73613 |
| .7526  | .9835 19182  | .1808 03814   | .7981 30696  | .9714 53414  |
| .7527  | .9835 01096  | .1809 02165   | .7984 27856  | .9717 33242  |
| .7528  | .9834 83001  | .1810 00514   | .7987 25043  | .9720 13100  |
| .7529  | .9834 64896  | .1810 98861   | .7990 22258  | .9722 92987  |
| 1.7530 | 0.9834 46782 | -0.1811 97207 | 2.7993 19501 | 2.9725 72904 |
| .7531  | .9834 28657  | .1812 95551   | .7996 16773  | .9728 52851  |
| .7532  | .9834 10522  | .1813 93893   | .7999 14072  | .9731 32828  |
| .7533  | .9833 92378  | .1814 92233   | .8002 11399  | .9734 12834  |
| .7534  | .9833 74224  | .1815 90571   | .8005 08755  | .9736 92870  |
| 1.7535 | 0.9833 56060 | -0.1816 88908 | 2.8008 06138 | 2.9739 72936 |
| .7536  | .9833 37886  | .1817 87242   | .8011 03549  | .9742 53031  |
| .7537  | .9833 19703  | .1818 85575   | .8014 00988  | .9745 33156  |
| .7538  | .9833 01509  | .1819 83906   | .8016 98456  | .9748 13311  |
| .7539  | .9832 83306  | .1820 82236   | .8019 95951  | .9750 93496  |
| 1.7540 | 0.9832 65093 | -0.1821 80563 | 2.8022 93474 | 2.9753 73710 |
| .7541  | .9832 46870  | .1822 78889   | .8025 91026  | .9756 53955  |
| .7542  | .9832 28637  | .1823 77212   | .8028 88605  | .9759 34229  |
| .7543  | .9832 10394  | .1824 75534   | .8031 86213  | .9762 14532  |
| .7544  | .9831 92142  | .1825 73854   | .8034 83848  | .9764 94866  |
| 1.7545 | 0.9831 73879 | -0.1826 72173 | 2.8037 81512 | 2.9767 75229 |
| .7546  | .9831 55607  | .1827 70489   | .8040 79203  | .9770 55622  |
| .7547  | .9831 37325  | .1828 68804   | .8043 76923  | .9773 36045  |
| .7548  | .9831 19034  | .1829 67117   | .8046 74670  | .9776 16498  |
| .7549  | .9831 00732  | .1830 65428   | .8049 72446  | .9778 96980  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.7550 | 0.9830 82421 | -0.1831 63737 | 2.8052 70250 | 2.9781 77492 |
| .7551  | .9830 64099  | .1832 62044   | .8055 68082  | .9784 58034  |
| .7552  | .9830 45768  | .1833 60350   | .8058 65941  | .9787 38606  |
| .7553  | .9830 27427  | .1834 58653   | .8061 63829  | .9790 19207  |
| .7554  | .9830 09076  | .1835 56955   | .8064 61745  | .9792 99839  |
| 1.7555 | 0.9829 90716 | -0.1836 55255 | 2.8067 59689 | 2.9795 80500 |
| .7556  | .9829 72345  | .1837 53553   | .8070 57661  | .9798 61190  |
| .7557  | .9829 53965  | .1838 51850   | .8073 55662  | .9801 41911  |
| .7558  | .9829 35575  | .1839 50144   | .8076 53690  | .9804 22662  |
| .7559  | .9829 17175  | .1840 48437   | .8079 51746  | .9807 03442  |
| 1.7560 | 0.9828 98765 | -0.1841 46727 | 2.8082 49830 | 2.9809 84252 |
| .7561  | .9828 80346  | .1842 45016   | .8085 47943  | .9812 65092  |
| .7562  | .9828 61916  | .1843 43304   | .8088 46083  | .9815 45962  |
| .7563  | .9828 43477  | .1844 41589   | .8091 44252  | .9818 26861  |
| .7564  | .9828 25028  | .1845 39872   | .8094 42449  | .9821 07790  |
| 1.7565 | 0.9828 06569 | -0.1846 38154 | 2.8097 40674 | 2.9823 88750 |
| .7566  | .9827 88100  | .1847 36434   | .8100 38927  | .9826 69739  |
| .7567  | .9827 69622  | .1848 34711   | .8103 37208  | .9829 50757  |
| .7568  | .9827 51133  | .1849 32987   | .8106 35517  | .9832 31806  |
| .7569  | .9827 32635  | .1850 31262   | .8109 33854  | .9835 12884  |
| 1.7570 | 0.9827 14127 | -0.1851 29534 | 2.8112 32219 | 2.9837 93993 |
| .7571  | .9826 95609  | .1852 27805   | .8115 30613  | .9840 75131  |
| .7572  | .9826 77082  | .1853 26073   | .8118 29034  | .9843 56299  |
| .7573  | .9826 58544  | .1854 24340   | .8121 27484  | .9846 37497  |
| .7574  | .9826 39997  | .1855 22605   | .8124 25962  | .9849 18724  |
| 1.7575 | 0.9826 21440 | -0.1856 20868 | 2.8127 24468 | 2.9851 99982 |
| .7576  | .9826 02873  | .1857 19129   | .8130 23002  | .9854 81269  |
| .7577  | .9825 84296  | .1858 17388   | .8133 21564  | .9857 62586  |
| .7578  | .9825 65709  | .1859 15646   | .8136 20154  | .9860 43934  |
| .7579  | .9825 47113  | .1860 13902   | .8139 18773  | .9863 25310  |
| 1.7580 | 0.9825 28506 | -0.1861 12155 | 2.8142 17419 | 2.9866 06717 |
| .7581  | .9825 09890  | .1862 10407   | .8145 16094  | .9868 88154  |
| .7582  | .9824 91264  | .1863 08657   | .8148 14797  | .9871 69621  |
| .7583  | .9824 72628  | .1864 06906   | .8151 13528  | .9874 51117  |
| .7584  | .9824 53983  | .1865 05152   | .8154 12287  | .9877 32643  |
| 1.7585 | 0.9824 35327 | -0.1866 03396 | 2.8157 11075 | 2.9880 14199 |
| .7586  | .9824 16662  | .1867 01639   | .8160 09890  | .9882 95785  |
| .7587  | .9823 97987  | .1867 99880   | .8163 08734  | .9885 77401  |
| .7588  | .9823 79302  | .1868 98119   | .8166 07606  | .9888 59047  |
| .7589  | .9823 60607  | .1869 96356   | .8169 06506  | .9891 40723  |
| 1.7590 | 0.9823 41903 | -0.1870 94591 | 2.8172 05434 | 2.9894 22428 |
| .7591  | .9823 23188  | .1871 92824   | .8175 04390  | .9897 04164  |
| .7592  | .9823 04464  | .1872 91055   | .8178 03375  | .9899 85929  |
| .7593  | .9822 85730  | .1873 89285   | .8181 02387  | .9902 67725  |
| .7594  | .9822 66986  | .1874 87512   | .8184 01428  | .9905 49550  |
| 1.7595 | 0.9822 48233 | -0.1875 85738 | 2.8187 00497 | 2.9908 31405 |
| .7596  | .9822 29469  | .1876 83962   | .8189 99594  | .9911 13290  |
| .7597  | .9822 10696  | .1877 82184   | .8192 98720  | .9913 95205  |
| .7598  | .9821 91913  | .1878 80404   | .8195 97873  | .9916 77150  |
| .7599  | .9821 73120  | .1879 78623   | .8198 97055  | .9919 59124  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.7600 | 0.9821 54317 | -0.1880 76839 | 2.8201 96265 | 2.9922 41129 |
| .7601  | .9821 35505  | .1881 75053   | .8204 95504  | .9925 23164  |
| .7602  | .9821 16682  | .1882 73266   | .8207 94770  | .9928 52228  |
| .7603  | .9820 97850  | .1883 71477   | .8210 94065  | .9930 87323  |
| .7604  | .9820 79008  | .1884 69686   | .8213 93387  | .9933 69447  |
| 1.7605 | 0.9820 60156 | -0.1885 67893 | 2.8216 92738 | 2.9936 51601 |
| .7606  | .9820 41294  | .1886 66098   | .8219 92118  | .9939 33786  |
| .7607  | .9820 22423  | .1887 64301   | .8222 91525  | .9942 16000  |
| .7608  | .9820 03541  | .1888 62502   | .8225 90961  | .9944 98244  |
| .7609  | .9819 84650  | .1889 60701   | .8228 90425  | .9947 80518  |
| 1.7610 | 0.9819 65749 | -0.1890 58899 | 2.8231 89917 | 2.9950 62822 |
| .7611  | .9819 46838  | .1891 57095   | .8234 89437  | .9953 45156  |
| .7612  | .9819 27918  | .1892 55288   | .8237 88966  | .9956 27520  |
| .7613  | .9819 08987  | .1893 53480   | .8240 88563  | .9959 09914  |
| .7614  | .9818 90047  | .1894 51670   | .8243 88168  | .9961 92338  |
| 1.7615 | 0.9818 71097 | -0.1895 49858 | 2.8246 87801 | 2.9964 74791 |
| .7616  | .9818 52137  | .1896 48044   | .8249 87463  | .9967 57275  |
| .7617  | .9818 33167  | .1897 46229   | .8252 87153  | .9970 39789  |
| .7618  | .9818 14188  | .1898 44411   | .8255 86871  | .9973 22333  |
| .7619  | .9817 95199  | .1899 42591   | .8258 86617  | .9976 04906  |
| 1.7620 | 0.9817 76199 | -0.1900 40770 | 2.8261 86392 | 2.9978 87510 |
| .7621  | .9817 57190  | .1901 38947   | .8264 86195  | .9981 70144  |
| .7622  | .9817 38172  | .1902 37122   | .8267 85926  | .9984 52807  |
| .7623  | .9817 19143  | .1903 35294   | .8270 85685  | .9987 35501  |
| .7624  | .9817 00105  | .1904 33465   | .8273 85773  | .9990 18224  |
| 1.7625 | 0.9816 81056 | -0.1905 31634 | 2.8276 85689 | 2.9993 00978 |
| .7626  | .9816 61998  | .1906 29802   | .8279 85633  | .9995 83761  |
| .7627  | .9816 42930  | .1907 27967   | .8282 85606  | .9998 66575  |
| .7628  | .9816 23853  | .1908 26130   | .8285 85607  | 3.0001 49419 |
| .7629  | .9816 04765  | .1909 24292   | .8288 85636  | .0004 32292  |
| 1.7630 | 0.9815 85668 | -0.1910 22451 | 2.8291 85693 | 3.0007 15196 |
| .7631  | .9815 66561  | .1911 20609   | .8294 85779  | .0009 98129  |
| .7632  | .9815 47444  | .1912 18764   | .8297 85893  | .0012 81093  |
| .7633  | .9815 28317  | .1913 16918   | .8300 86035  | .0015 64086  |
| .7634  | .9815 09180  | .1914 15070   | .8303 86205  | .0018 47110  |
| 1.7635 | 0.9814 90034 | -0.1915 13220 | 2.8306 86404 | 3.0021 30164 |
| .7636  | .9814 70878  | .1916 11368   | .8309 86632  | .0024 13247  |
| .7637  | .9814 51712  | .1917 09514   | .8312 86887  | .0026 96361  |
| .7638  | .9814 32536  | .1918 07658   | .8315 87171  | .0029 79505  |
| .7639  | .9814 13350  | .1919 05801   | .8318 87483  | .0032 62678  |
| 1.7640 | 0.9813 94155 | -0.1920 03941 | 2.8321 87823 | 3.0035 45882 |
| .7641  | .9813 74949  | .1921 02080   | .8324 88192  | .0038 29116  |
| .7642  | .9813 55734  | .1922 00216   | .8327 88589  | .0041 12380  |
| .7643  | .9813 36509  | .1922 98351   | .8330 89015  | .0043 95674  |
| .7644  | .9813 17274  | .1923 96483   | .8333 89468  | .0046 78998  |
| 1.7645 | 0.9812 98030 | -0.1924 94614 | 2.8336 89950 | 3.0049 62352 |
| .7646  | .9812 78776  | .1925 92743   | .8339 90461  | .0052 45736  |
| .7647  | .9812 59511  | .1926 90870   | .8342 90999  | .0055 29150  |
| .7648  | .9812 40237  | .1927 88995   | .8345 91567  | .0058 12594  |
| .7649  | .9812 20954  | .1928 87118   | .8348 92162  | .0060 96068  |



| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.7650 | 0.9812 01660 | -0.1929 85239 | 2.8351 92786 | 3.0063 79572 |
| .7651  | .9811 82357  | .1930 83358   | .8354 93458  | .0066 63107  |
| .7652  | .9811 63043  | .1931 81476   | .8357 94118  | .0069 46671  |
| .7653  | .9811 43720  | .1932 79591   | .8360 94827  | .0072 30265  |
| .7654  | .9811 24387  | .1933 77704   | .8363 95564  | .0075 13890  |
| 1.7655 | 0.9811 05045 | -0.1934 75816 | 2.8366 96330 | 3.0077 97545 |
| .7656  | .9810 85692  | .1935 73925   | .8369 97124  | .0080 81229  |
| .7657  | .9810 66330  | .1936 72033   | .8372 97946  | .0083 64944  |
| .7658  | .9810 46958  | .1937 70139   | .8375 98797  | .0086 48689  |
| .7659  | .9810 27576  | .1938 68242   | .8378 99676  | .0089 32464  |
| 1.7660 | 0.9810 08184 | -0.1939 66344 | 2.8382 00583 | 3.0092 16269 |
| .7661  | .9809 88783  | .1940 64444   | .8385 01519  | .0095 00104  |
| .7662  | .9809 69371  | .1941 62542   | .8388 02483  | .0097 83969  |
| .7663  | .9809 49950  | .1942 60638   | .8391 03476  | .0100 67864  |
| .7664  | .9809 30519  | .1943 58732   | .8394 04497  | .0103 51790  |
| 1.7665 | 0.9809 11078 | -0.1944 56824 | 2.8397 05546 | 3.0106 35745 |
| .7666  | .9808 91628  | .1945 54914   | .8400 06624  | .0109 19731  |
| .7667  | .9808 72167  | .1946 53002   | .8403 07730  | .0112 03747  |
| .7668  | .9808 52697  | .1947 51088   | .8406 08865  | .0114 87792  |
| .7669  | .9808 33217  | .1948 49173   | .8409 10028  | .0117 71868  |
| 1.7670 | 0.9808 13727 | -0.1949 47255 | 2.8412 11219 | 3.0120 55974 |
| .7671  | .9807 94228  | .1950 45336   | .8415 12439  | .0123 40111  |
| .7672  | .9807 74718  | .1951 43414   | .8418 13687  | .0126 24277  |
| .7673  | .9807 55199  | .1952 41490   | .8421 14964  | .0129 08473  |
| .7674  | .9807 35670  | .1953 39565   | .8424 16269  | .0131 92700  |
| 1.7675 | 0.9807 16131 | -0.1954 37638 | 2.8427 17603 | 3.0134 76957 |
| .7676  | .9806 96582  | .1955 35708   | .8430 18964  | .0137 61243  |
| .7677  | .9806 77024  | .1956 33777   | .8433 20355  | .0140 45560  |
| .7678  | .9806 57456  | .1957 31844   | .8436 21774  | .0143 29907  |
| .7679  | .9806 37878  | .1958 29908   | .8439 23221  | .0146 14285  |
| 1.7680 | 0.9806 18290 | -0.1959 27971 | 2.8442 24696 | 3.0148 98692 |
| .7681  | .9805 98692  | .1960 26032   | .8445 26201  | .0151 83130  |
| .7682  | .9805 79084  | .1961 24091   | .8448 27733  | .0154 67597  |
| .7683  | .9805 59467  | .1962 22148   | .8451 29294  | .0157 52095  |
| .7684  | .9805 39840  | .1963 20203   | .8454 30883  | .0160 36623  |
| 1.7685 | 0.9805 20203 | -0.1964 18256 | 2.8457 32501 | 3.0163 21181 |
| .7686  | .9805 00556  | .1965 16307   | .8460 34148  | .0166 05770  |
| .7687  | .9804 80900  | .1966 14356   | .8463 35823  | .0168 90388  |
| .7688  | .9804 61234  | .1967 12403   | .8466 37526  | .0171 75037  |
| .7689  | .9804 41557  | .1968 10448   | .8469 39258  | .0174 59716  |
| 1.7690 | 0.9804 21871 | -0.1969 08491 | 2.8472 41018 | 3.0177 44425 |
| .7691  | .9804 02176  | .1970 06533   | .8475 42806  | .0180 29164  |
| .7692  | .9803 82470  | .1971 04572   | .8478 44624  | .0183 13933  |
| .7693  | .9803 62755  | .1972 02609   | .8481 46469  | .0185 98733  |
| .7694  | .9803 43030  | .1973 00644   | .8484 48343  | .0188 83563  |
| 1.7695 | 0.9803 23295 | -0.1973 98678 | 2.8487 50246 | 3.0191 68423 |
| .7696  | .9803 03550  | .1974 96709   | .8490 52177  | .0194 53313  |
| .7697  | .9802 83795  | .1975 94738   | .8493 54137  | .0197 38233  |
| .7698  | .9802 64031  | .1976 92766   | .8496 56125  | .0200 23183  |
| .7699  | .9802 44257  | .1977 90791   | .8499 58141  | .0203 08164  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.7700 | 0.9802 24473 | -0.1978 88815 | 2.8502 60186 | 3.0205 93175 |
| .7701  | .9802 04679  | .1979 86836   | .8505 62260  | .0208 78216  |
| .7702  | .9801 84875  | .1980 84856   | .8508 64562  | .0211 63288  |
| .7703  | .9801 65062  | .1981 82873   | .8511 66493  | .0214 48389  |
| .7704  | .9801 45239  | .1982 80889   | .8514 68652  | .0217 33521  |
| 1.7705 | 0.9801 25406 | -0.1983 78902 | 2.8517 70839 | 3.0220 18683 |
| .7706  | .9801 05563  | .1984 76914   | .8520 73055  | .0223 03875  |
| .7707  | .9800 85710  | .1985 74923   | .8523 75300  | .0225 89097  |
| .7708  | .9800 65848  | .1986 72931   | .8526 77573  | .0228 74350  |
| .7709  | .9800 45976  | .1987 70936   | .8529 79875  | .0231 59633  |
| 1.7710 | 0.9800 26094 | -0.1988 68940 | 2.8532 82205 | 3.0234 44946 |
| .7711  | .9800 06202  | .1989 66942   | .8535 84564  | .0237 30289  |
| .7712  | .9799 86301  | .1990 64941   | .8538 86951  | .0240 15663  |
| .7713  | .9799 66389  | .1991 62939   | .8541 89367  | .0243 01067  |
| .7714  | .9799 46468  | .1992 60934   | .8544 91811  | .0245 86501  |
| 1.7715 | 0.9799 26537 | -0.1993 58928 | 2.8547 94284 | 3.0248 71965 |
| .7716  | .9799 06596  | .1994 56920   | .8550 96786  | .0251 57460  |
| .7717  | .9798 86646  | .1995 54909   | .8553 99316  | .0254 42985  |
| .7718  | .9798 66685  | .1996 52897   | .8557 01874  | .0257 28540  |
| .7719  | .9798 46715  | .1997 50883   | .8560 04461  | .0260 14125  |
| 1.7720 | 0.9798 26735 | -0.1998 48866 | 2.8563 07077 | 3.0262 99740 |
| .7721  | .9798 06745  | .1999 46848   | .8566 09721  | .0265 85386  |
| .7722  | .9797 86746  | .2000 44828   | .8569 12394  | .0268 71062  |
| .7723  | .9797 66736  | .2001 42805   | .8572 15096  | .0271 56769  |
| .7724  | .9797 46717  | .2002 40781   | .8575 17826  | .0274 42505  |
| 1.7725 | 0.9797 26688 | -0.2003 38755 | 2.8578 20584 | 3.0277 28272 |
| .7726  | .9797 06649  | .2004 36727   | .8581 23371  | .0280 14070  |
| .7727  | .9796 86601  | .2005 34696   | .8584 26187  | .0282 99897  |
| .7728  | .9796 66542  | .2006 32664   | .8587 29031  | .0285 85755  |
| .7729  | .9796 46474  | .2007 30629   | .8590 31904  | .0288 71643  |
| 1.7730 | 0.9796 26396 | -0.2008 28593 | 2.8593 34806 | 3.0291 57561 |
| .7731  | .9796 06308  | .2009 26555   | .8596 37736  | .0294 43510  |
| .7732  | .9795 86211  | .2010 24514   | .8599 40694  | .0297 29489  |
| .7733  | .9795 66104  | .2011 22472   | .8602 43682  | .0300 15498  |
| .7734  | .9795 45986  | .2012 20428   | .8605 46697  | .0303 01537  |
| 1.7735 | 0.9795 25859 | -0.2013 18381 | 2.8608 49742 | 3.0305 87607 |
| .7736  | .9795 05723  | .2014 16333   | .8611 52815  | .0308 73707  |
| .7737  | .9794 85576  | .2015 14282   | .8614 55917  | .0311 59838  |
| .7738  | .9794 65420  | .2016 12230   | .8617 59047  | .0314 45999  |
| .7739  | .9794 45254  | .2017 10175   | .8620 62206  | .0317 32190  |
| 1.7740 | 0.9794 25078 | -0.2018 08119 | 2.8623 65393 | 3.0320 18411 |
| .7741  | .9794 04892  | .2019 06060   | .8626 68609  | .0323 04663  |
| .7742  | .9793 84697  | .2020 04000   | .8629 71854  | .0325 90945  |
| .7743  | .9793 64491  | .2021 01937   | .8632 75128  | .0328 77257  |
| .7744  | .9793 44276  | .2021 99873   | .8635 78430  | .0331 63600  |
| 1.7745 | 0.9793 24051 | -0.2022 97806 | 2.8638 81760 | 3.0334 49973 |
| .7746  | .9793 03817  | .2023 95738   | .8641 85120  | .0337 36376  |
| .7747  | .9792 83572  | .2024 93667   | .8644 88508  | .0340 22810  |
| .7748  | .9792 63318  | .2025 91594   | .8647 91924  | .0343 09274  |
| .7749  | .9792 43054  | .2026 89520   | .8650 95370  | .0345 95768  |

| $x$    | $\sin x$     | $\cos x$      | $\sinh x$    | $\cosh x$    |
|--------|--------------|---------------|--------------|--------------|
| 1.7750 | 0.9792 22780 | -0.2027 87443 | 2.8653 98843 | 3.0348 82293 |
| .7751  | .9792 02496  | .2028 85364   | .8657 02346  | .0351 68848  |
| .7752  | .9791 82203  | .2029 83283   | .8660 05877  | .0354 55433  |
| .7753  | .9791 61900  | .2030 81201   | .8663 09437  | .0357 42049  |
| .7754  | .9791 41587  | .2031 79116   | .8666 13026  | .0360 28695  |
| 1.7755 | 0.9791 21264 | -0.2032 77029 | 2.8669 16643 | 3.0363 15372 |
| .7756  | .9791 00931  | .2033 74940   | .8672 20289  | .0366 02079  |
| .7757  | .9790 80589  | .2034 72849   | .8675 23963  | .0368 88816  |
| .7758  | .9790 60237  | .2035 70756   | .8678 27666  | .0371 75583  |
| .7759  | .9790 39875  | .2036 68661   | .8681 31398  | .0374 62381  |
| 1.7760 | 0.9790 19503 | -0.2037 66564 | 2.8684 35159 | 3.0377 49210 |
| .7761  | .9789 99121  | .2038 64465   | .8687 38948  | .0380 36068  |
| .7762  | .9789 78730  | .2039 62364   | .8690 42766  | .0383 22957  |
| .7763  | .9789 58329  | .2040 60261   | .8693 46613  | .0386 09877  |
| .7764  | .9789 37918  | .2041 58156   | .8696 50488  | .0388 96827  |
| 1.7765 | 0.9789 17497 | -0.2042 56048 | 2.8699 54392 | 3.0391 83807 |
| .7766  | .9788 97067  | .2043 53939   | .8702 58325  | .0394 70818  |
| .7767  | .9788 76627  | .2044 51828   | .8705 62286  | .0397 57859  |
| .7768  | .9788 56177  | .2045 49714   | .8708 66276  | .0400 44930  |
| .7769  | .9788 35717  | .2046 47599   | .8711 70295  | .0403 32032  |
| 1.7770 | 0.9788 15247 | -0.2047 45482 | 2.8714 74343 | 3.0406 19164 |
| .7771  | .9787 94768  | .2048 43362   | .8717 78419  | .0409 06327  |
| .7772  | .9787 74278  | .2049 41241   | .8720 82524  | .0411 93520  |
| .7773  | .9787 53779  | .2050 39117   | .8723 86658  | .0414 80743  |
| .7774  | .9787 33271  | .2051 36991   | .8726 90820  | .0417 67997  |
| 1.7775 | 0.9787 12752 | -0.2052 34864 | 2.8729 95011 | 3.0420 55281 |
| .7776  | .9786 92224  | .2053 32734   | .8732 99231  | .0423 42596  |
| .7777  | .9786 71685  | .2054 30602   | .8736 03480  | .0426 29941  |
| .7778  | .9786 51137  | .2055 28468   | .8739 07757  | .0429 17317  |
| .7779  | .9786 30580  | .2056 26332   | .8742 12063  | .0432 04723  |
| 1.7780 | 0.9786 10012 | -0.2057 24194 | 2.8745 16398 | 3.0434 92159 |
| .7781  | .9785 89435  | .2058 22054   | .8748 20762  | .0437 79626  |
| .7782  | .9785 68848  | .2059 19912   | .8751 25154  | .0440 67123  |
| .7783  | .9785 48251  | .2060 17768   | .8754 29575  | .0443 54651  |
| .7784  | .9785 27644  | .2061 15622   | .8757 34025  | .0446 42209  |
| 1.7785 | 0.9785 07028 | -0.2062 13474 | 2.8760 38504 | 3.0449 29798 |
| .7786  | .9784 86401  | .2063 11323   | .8763 43011  | .0452 17417  |
| .7787  | .9784 65765  | .2064 09171   | .8766 47547  | .0455 05067  |
| .7788  | .9784 45120  | .2065 07016   | .8769 52112  | .0457 92747  |
| .7789  | .9784 24464  | .2066 04860   | .8772 56706  | .0460 80457  |
| 1.7790 | 0.9784 03799 | -0.2067 02701 | 2.8775 61328 | 3.0463 68198 |
| .7791  | .9783 83124  | .2068 00541   | .8778 65979  | .0466 55969  |
| .7792  | .9783 62439  | .2068 98378   | .8781 70659  | .0469 43771  |
| .7793  | .9783 41744  | .2069 96213   | .8784 75368  | .0472 31603  |
| .7794  | .9783 21039  | .2070 94046   | .8787 80106  | .0475 19466  |
| 1.7795 | 0.9783 00325 | -0.2071 91877 | 2.8790 84872 | 3.0478 07359 |
| .7796  | .9782 79601  | .2072 89706   | .8793 89667  | .0480 95283  |
| .7797  | .9782 58867  | .2073 87533   | .8796 94491  | .0483 83237  |
| .7798  | .9782 38123  | .2074 85358   | .8799 99344  | .0486 71222  |
| .7799  | .9782 17370  | .2075 83181   | .8803 04225  | .0489 59237  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.7800 | 0.9781 96607 | -0.2076 81002 | 2.8806 09136 | 3.0492 47283 |
| .7801  | .9781 75834  | .2077 78820   | .8809 14075  | .0495 35359  |
| .7802  | .9781 55051  | .2078 76637   | .8812 19043  | .0498 23463  |
| .7803  | .9781 34258  | .2079 74451   | .8815 24039  | .0501 11603  |
| .7804  | .9781 13456  | .2080 72264   | .8818 29065  | .0503 99771  |
| 1.7805 | 0.9780 92644 | -0.2081 70074 | 2.8821 34119 | 3.0506 87969 |
| .7806  | .9780 71822  | .2082 67882   | .8824 39203  | .0509 76197  |
| .7807  | .9780 50990  | .2083 65688   | .8827 44315  | .0512 64457  |
| .7808  | .9780 30149  | .2084 63492   | .8830 49456  | .0515 52746  |
| .7809  | .9780 09298  | .2085 61294   | .8833 54625  | .0518 41066  |
| 1.7810 | 0.9779 88437 | -0.2086 59094 | 2.8836 59324 | 3.0521 29417 |
| .7811  | .9779 67566  | .2087 56892   | .8839 65051  | .0524 17796  |
| .7812  | .9779 46685  | .2088 54688   | .8842 70307  | .0527 06210  |
| .7813  | .9779 25795  | .2089 52481   | .8845 75592  | .0529 94652  |
| .7814  | .9779 04895  | .2090 50273   | .8848 80906  | .0532 83126  |
| 1.7815 | 0.9778 83985 | -0.2091 48062 | 2.8851 86249 | 3.0535 71629 |
| .7816  | .9778 63065  | .2092 45850   | .8854 91621  | .0538 60163  |
| .7817  | .9778 42136  | .2093 43635   | .8857 97021  | .0541 48727  |
| .7818  | .9778 21197  | .2094 41418   | .8861 02450  | .0544 37322  |
| .7819  | .9778 00247  | .2095 39199   | .8864 07905  | .0547 25947  |
| 1.7820 | 0.9777 79289 | -0.2096 36978 | 2.8867 13396 | 3.0560 14604 |
| .7821  | .9777 58320  | .2097 34755   | .8870 18911  | .0563 03290  |
| .7822  | .9777 37342  | .2098 32530   | .8873 24456  | .0565 92037  |
| .7823  | .9777 16354  | .2099 30303   | .8876 30050  | .0568 80755  |
| .7824  | .9776 95356  | .2100 28073   | .8879 35632  | .0561 69533  |
| 1.7825 | 0.9776 74348 | -0.2101 25842 | 2.8882 41264 | 3.0564 58342 |
| .7826  | .9776 53331  | .2102 23608   | .8885 46924  | .0567 47132  |
| .7827  | .9776 32303  | .2103 21372   | .8888 52613  | .0570 36052  |
| .7828  | .9776 11266  | .2104 19134   | .8891 58331  | .0573 24952  |
| .7829  | .9775 90219  | .2105 16894   | .8894 64078  | .0576 13833  |
| 1.7830 | 0.9775 69163 | -0.2106 14652 | 2.8897 69864 | 3.0579 02845 |
| .7831  | .9775 48097  | .2107 12408   | .8900 75659  | .0581 91837  |
| .7832  | .9775 27020  | .2108 10162   | .8903 81492  | .0584 80660  |
| .7833  | .9775 05934  | .2109 07914   | .8906 87355  | .0587 69213  |
| .7834  | .9774 84839  | .2110 05663   | .8909 93246  | .0590 58993  |
| 1.7835 | 0.9774 63733 | -0.2111 03411 | 2.8912 99167 | 3.0593 48112 |
| .7836  | .9774 42618  | .2112 01156   | .8916 05116  | .0596 37257  |
| .7837  | .9774 21493  | .2112 98899   | .8919 11094  | .0599 26433  |
| .7838  | .9774 00358  | .2113 96640   | .8922 17101  | .0602 15640  |
| .7839  | .9773 79214  | .2114 94379   | .8925 23137  | .0605 04877  |
| 1.7840 | 0.9773 58059 | -0.2115 92116 | 2.8928 29202 | 3.0607 94144 |
| .7841  | .9773 36895  | .2116 89851   | .8931 35296  | .0610 83442  |
| .7842  | .9773 15721  | .2117 87584   | .8934 41419  | .0613 72772  |
| .7843  | .9772 94538  | .2118 85314   | .8937 47571  | .0616 62151  |
| .7844  | .9772 73344  | .2119 83042   | .8940 53751  | .0619 51521  |
| 1.7845 | 0.9772 52141 | -0.2120 80769 | 2.8943 59961 | 3.0622 40941 |
| .7846  | .9772 30928  | .2121 78493   | .8946 66200  | .0625 30393  |
| .7847  | .9772 09706  | .2122 76215   | .8949 72467  | .0628 19875  |
| .7848  | .9771 88473  | .2123 73935   | .8952 78764  | .0631 09337  |
| .7849  | .9771 67231  | .2124 71653   | .8955 85029  | .0633 98930  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| .7850  | 0.9771 45979 | -0.2125 69368 | 2.8958 91443 | 3.0636 88504 |
| .7851  | .9771 24717  | .2126 67082   | .8961 97327  | .0639 78109  |
| .7852  | .9771 03445  | .2127 64793   | .8965 04239  | .0642 67744  |
| .7853  | .9770 82164  | .2128 62502   | .8968 10680  | .0645 57410  |
| .7854  | .9770 60873  | .2129 60210   | .8971 17150  | .0648 47106  |
| 1.7855 | 0.9770 39572 | -0.2130 57915 | 2.8974 23650 | 3.0651 36833 |
| .7856  | .9770 18261  | .2131 55618   | .8977 30178  | .0654 26591  |
| .7857  | .9769 96941  | .2132 53318   | .8980 36735  | .0657 16379  |
| .7858  | .9769 75611  | .2133 51017   | .8983 43321  | .0660 06198  |
| .7859  | .9769 54271  | .2134 48713   | .8986 49936  | .0662 96048  |
| 1.7860 | 0.9769 32921 | -0.2135 46408 | 2.8989 56580 | 3.0665 85928 |
| .7861  | .9769 11561  | .2136 44100   | .8992 63253  | .0668 75839  |
| .7862  | .9768 90192  | .2137 41790   | .8995 69955  | .0671 65781  |
| .7863  | .9768 68813  | .2138 39479   | .8998 76686  | .0674 55753  |
| .7864  | .9768 47424  | .2139 37164   | .9001 83447  | .0677 45756  |
| 1.7865 | 0.9768 26025 | -0.2140 34848 | 2.9004 90236 | 3.0680 35790 |
| .7866  | .9768 04617  | .2141 32529   | .9007 97054  | .0683 25854  |
| .7867  | .9767 83199  | .2142 30208   | .9011 03901  | .0686 15949  |
| .7868  | .9767 61771  | .2143 27886   | .9014 10777  | .0689 06075  |
| .7869  | .9767 40333  | .2144 25561   | .9017 17682  | .0691 96231  |
| 1.7870 | 0.9767 18886 | -0.2145 23234 | 2.9020 24616 | 3.0694 86418 |
| .7871  | .9766 97429  | .2146 20905   | .9023 31579  | .0697 76636  |
| .7872  | .9766 75962  | .2147 18573   | .9026 38571  | .0700 66885  |
| .7873  | .9766 54485  | .2148 16240   | .9029 45593  | .0703 57164  |
| .7874  | .9766 32999  | .2149 13904   | .9032 52643  | .0706 47474  |
| 1.7875 | 0.9766 11502 | -0.2150 11566 | 2.9035 59722 | 3.0709 37814 |
| .7876  | .9765 89996  | .2151 09226   | .9038 66830  | .0712 28186  |
| .7877  | .9765 68480  | .2152 06884   | .9041 73968  | .0715 18588  |
| .7878  | .9765 46955  | .2153 04540   | .9044 81134  | .0718 09021  |
| .7879  | .9765 25419  | .2154 02194   | .9047 88330  | .0720 99484  |
| 1.7880 | 0.9765 03874 | -0.2154 99845 | 2.9050 95554 | 3.0723 89978 |
| .7881  | .9764 82320  | .2155 97495   | .9054 02808  | .0726 80503  |
| .7882  | .9764 60755  | .2156 95142   | .9057 10090  | .0729 71059  |
| .7883  | .9764 39180  | .2157 92787   | .9060 17402  | .0732 61645  |
| .7884  | .9764 17596  | .2158 90430   | .9063 24743  | .0735 52262  |
| 1.7885 | 0.9763 96002 | -0.2159 88070 | 2.9066 32112 | 3.0738 42910 |
| .7886  | .9763 74399  | .2160 85709   | .9069 39511  | .0741 33589  |
| .7887  | .9763 52785  | .2161 83345   | .9072 46939  | .0744 24298  |
| .7888  | .9763 31162  | .2162 80979   | .9075 54396  | .0747 15038  |
| .7889  | .9763 09529  | .2163 78611   | .9078 61882  | .0750 05809  |
| 1.7890 | 0.9762 87886 | -0.2164 76241 | 2.9081 69397 | 3.0752 96610 |
| .7891  | .9762 66234  | .2165 73869   | .9084 76941  | .0755 87443  |
| .7892  | .9762 44572  | .2166 71494   | .9087 84515  | .0758 78306  |
| .7893  | .9762 22900  | .2167 69118   | .9090 92117  | .0761 69200  |
| .7894  | .9762 01218  | .2168 66739   | .9093 99748  | .0764 60124  |
| 1.7895 | 0.9761 79526 | -0.2169 64358 | 2.9097 07409 | 3.0767 51080 |
| .7896  | .9761 57825  | .2170 61975   | .9100 15099  | .0770 42066  |
| .7897  | .9761 36114  | .2171 59590   | .9103 22817  | .0773 33083  |
| .7898  | .9761 14393  | .2172 57202   | .9106 30565  | .0776 24130  |
| .7899  | .9760 92662  | .2173 54813   | .9109 38342  | .0779 15209  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.7900 | 0.9760 70922 | -0.2174 52421 | 2.9112 46148 | 3.0782 06318 |
| .7901  | .9760 49172  | .2175 50027   | .9115 53984  | .0784 97453  |
| .7902  | .9760 27412  | .2176 47631   | .9118 61848  | .0787 88629  |
| .7903  | .9760 05642  | .2177 45232   | .9121 69741  | .0790 79830  |
| .7904  | .9759 83863  | .2178 42832   | .9124 77664  | .0793 71063  |
| 1.7905 | 0.9759 62074 | -0.2179 40429 | 2.9127 85615 | 3.0796 62326 |
| .7906  | .9759 40275  | .2180 38024   | .9130 93596  | .0799 53620  |
| .7907  | .9759 18466  | .2181 35617   | .9134 01606  | .0802 44945  |
| .7908  | .9758 96648  | .2182 33208   | .9137 09645  | .0805 36300  |
| .7909  | .9758 74820  | .2183 30796   | .9140 17713  | .0808 27687  |
| 1.7910 | 0.9758 52982 | -0.2184 28383 | 2.9143 25811 | 3.0811 19104 |
| .7911  | .9758 31134  | .2185 25967   | .9146 33937  | .0814 10552  |
| .7912  | .9758 09276  | .2186 23549   | .9149 42093  | .0817 02031  |
| .7913  | .9757 87409  | .2187 21129   | .9152 50278  | .0819 93540  |
| .7914  | .9757 65532  | .2188 18706   | .9155 58492  | .0822 85081  |
| 1.7915 | 0.9757 43645 | -0.2189 16282 | 2.9158 66735 | 3.0825 76652 |
| .7916  | .9757 21749  | .2190 13855   | .9161 75007  | .0828 68254  |
| .7917  | .9756 99843  | .2191 11426   | .9164 83308  | .0831 59887  |
| .7918  | .9756 77927  | .2192 08995   | .9167 91639  | .0834 51551  |
| .7919  | .9756 56001  | .2193 06562   | .9170 99989  | .0837 43245  |
| 1.7920 | 0.9756 34065 | -0.2194 04126 | 2.9174 08388 | 3.0840 34971 |
| .7921  | .9756 12120  | .2195 01689   | .9177 16806  | .0843 26727  |
| .7922  | .9755 90165  | .2195 99249   | .9180 25253  | .0846 18514  |
| .7923  | .9755 68200  | .2196 96807   | .9183 33729  | .0849 10332  |
| .7924  | .9755 46226  | .2197 94362   | .9186 42235  | .0852 02181  |
| 1.7925 | 0.9755 24241 | -0.2198 91918 | 2.9189 50770 | 3.0854 94060 |
| .7926  | .9755 02247  | .2199 89467   | .9192 59334  | .0857 85971  |
| .7927  | .9754 80243  | .2200 87016   | .9195 67927  | .0860 77912  |
| .7928  | .9754 58230  | .2201 84563   | .9198 76549  | .0863 69884  |
| .7929  | .9754 36206  | .2202 82108   | .9201 85201  | .0866 61888  |
| 1.7930 | 0.9754 14173 | -0.2203 79651 | 2.9204 93882 | 3.0869 53922 |
| .7931  | .9753 92131  | .2204 77191   | .9208 02592  | .0872 45986  |
| .7932  | .9753 70078  | .2205 74729   | .9211 11331  | .0875 38082  |
| .7933  | .9753 48016  | .2206 72265   | .9214 20069  | .0878 30209  |
| .7934  | .9753 25943  | .2207 69799   | .9217 28897  | .0881 22366  |
| 1.7935 | 0.9753 03862 | -0.2208 67330 | 2.9220 37724 | 3.0884 14554 |
| .7936  | .9752 81770  | .2209 64859   | .9223 46580  | .0887 06774  |
| .7937  | .9752 59669  | .2210 62386   | .9226 55465  | .0889 99024  |
| .7938  | .9752 37558  | .2211 59911   | .9229 64380  | .0892 91305  |
| .7939  | .9752 15437  | .2212 57434   | .9232 73323  | .0895 83617  |
| 1.7940 | 0.9751 93306 | -0.2213 54954 | 2.9235 82296 | 3.0898 75959 |
| .7941  | .9751 71166  | .2214 52473   | .9238 91299  | .0901 68333  |
| .7942  | .9751 49016  | .2215 49989   | .9242 00330  | .0904 60738  |
| .7943  | .9751 26856  | .2216 47502   | .9245 09391  | .0907 53173  |
| .7944  | .9751 04686  | .2217 45014   | .9248 18481  | .0910 45639  |
| 1.7945 | 0.9750 82507 | -0.2218 42523 | 2.9251 27600 | 3.0913 38137 |
| .7946  | .9750 60318  | .2219 40030   | .9254 36748  | .0916 30665  |
| .7947  | .9750 38119  | .2220 37535   | .9257 45926  | .0919 23224  |
| .7948  | .9750 15910  | .2221 35038   | .9260 55133  | .0922 15814  |
| .7949  | .9749 93692  | .2222 32539   | .9263 64369  | .0925 08435  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.7950 | 0.9749 71464 | -0.2223 30037 | 2.9266 73635 | 3.0928 01087 |
| .7951  | .9749 49226  | .2224 27533   | .9269 82929  | .0930 93770  |
| .7952  | .9749 26978  | .2225 25027   | .9272 92253  | .0933 86484  |
| .7953  | .9749 04721  | .2226 22518   | .9276 01607  | .0936 79228  |
| .7954  | .9748 82454  | .2227 20008   | .9279 10989  | .0939 72004  |
| 1.7955 | 0.9748 60177 | -0.2228 17495 | 2.9282 20401 | 3.0942 64811 |
| .7956  | .9748 37890  | .2229 14980   | .9285 29842  | .0945 57648  |
| .7957  | .9748 15594  | .2230 12462   | .9288 39313  | .0948 50517  |
| .7958  | .9747 93288  | .2231 09943   | .9291 48812  | .0951 43416  |
| .7959  | .9747 70972  | .2232 07421   | .9294 58341  | .0954 36346  |
| 1.7960 | 0.9747 48646 | -0.2233 04897 | 2.9297 67900 | 3.0957 29308 |
| .7961  | .9747 26311  | .2234 02371   | .9300 77487  | .0960 22300  |
| .7962  | .9747 03966  | .2234 99842   | .9303 87104  | .0963 15323  |
| .7963  | .9746 81611  | .2235 97311   | .9306 96750  | .0966 08377  |
| .7964  | .9746 59246  | .2236 94779   | .9310 06426  | .0969 01462  |
| 1.7965 | 0.9746 36872 | -0.2237 92243 | 2.9313 16131 | 3.0971 94579 |
| .7966  | .9746 14488  | .2238 89706   | .9316 25865  | .0974 87726  |
| .7967  | .9745 92094  | .2239 87166   | .9319 35628  | .0977 80904  |
| .7968  | .9745 69690  | .2240 84624   | .9322 45421  | .0980 74113  |
| .7969  | .9745 47277  | .2241 82080   | .9325 55243  | .0983 67353  |
| 1.7970 | 0.9745 24854 | -0.2242 79534 | 2.9328 65094 | 3.0986 60624 |
| .7971  | .9745 02421  | .2243 76985   | .9331 74975  | .0989 53926  |
| .7972  | .9744 79978  | .2244 74434   | .9334 84885  | .0992 47259  |
| .7973  | .9744 57526  | .2245 71881   | .9337 94825  | .0995 40623  |
| .7974  | .9744 35064  | .2246 69326   | .9341 04793  | .0998 34018  |
| 1.7975 | 0.9744 12592 | -0.2247 66768 | 2.9344 14791 | 3.1001 27444 |
| .7976  | .9743 90111  | .2248 64208   | .9347 24819  | .1004 20901  |
| .7977  | .9743 67619  | .2249 61646   | .9350 34876  | .1007 14389  |
| .7978  | .9743 45118  | .2250 59082   | .9353 44962  | .1010 07908  |
| .7979  | .9743 22608  | .2251 56515   | .9356 55077  | .1013 01458  |
| 1.7980 | 0.9743 00087 | -0.2252 53946 | 2.9359 65222 | 3.1015 95039 |
| .7981  | .9742 77557  | .2253 51375   | .9362 75396  | .1018 88651  |
| .7982  | .9742 55017  | .2254 48802   | .9365 85600  | .1021 82294  |
| .7983  | .9742 32467  | .2255 46226   | .9368 95833  | .1024 75968  |
| .7984  | .9742 09908  | .2256 43648   | .9372 06095  | .1027 69673  |
| 1.7985 | 0.9741 87338 | -0.2257 41068 | 2.9375 16387 | 3.1030 63409 |
| .7986  | .9741 64759  | .2258 38486   | .9378 26708  | .1033 57176  |
| .7987  | .9741 42171  | .2259 35901   | .9381 37058  | .1036 50974  |
| .7988  | .9741 19572  | .2260 33314   | .9384 47438  | .1039 44804  |
| .7989  | .9740 96964  | .2261 30725   | .9387 57847  | .1042 38664  |
| 1.7990 | 0.9740 74346 | -0.2262 28134 | 2.9390 68285 | 3.1045 32555 |
| .7991  | .9740 51718  | .2263 25540   | .9393 78753  | .1048 26478  |
| .7992  | .9740 29081  | .2264 22944   | .9396 89251  | .1051 20431  |
| .7993  | .9740 06434  | .2265 20346   | .9399 99778  | .1054 14415  |
| .7994  | .9739 83777  | .2266 17745   | .9403 10334  | .1057 08431  |
| 1.7995 | 0.9739 61110 | -0.2267 15142 | 2.9406 20919 | 3.1060 02478 |
| .7996  | .9739 38434  | .2268 12537   | .9409 31534  | .1062 96555  |
| .7997  | .9739 15748  | .2269 09930   | .9412 42179  | .1065 90664  |
| .7998  | .9738 93052  | .2270 07321   | .9415 52852  | .1068 84804  |
| .7999  | .9738 70346  | .2271 04709   | .9418 63555  | .1071 78974  |

| $x$    | $\sin x$     | $\cos x$      | $\sinh x$    | $\cosh x$    |
|--------|--------------|---------------|--------------|--------------|
| 1.8000 | 0.9738 47631 | -0.2272 02095 | 2.9421 74288 | 3.1074 73176 |
| .8001  | .9738 24906  | .2272 99478   | .9424 85050  | .1077 67409  |
| .8002  | .9738 02171  | .2273 96860   | .9427 95842  | .1080 61673  |
| .8003  | .9737 79426  | .2274 94239   | .9431 06662  | .1083 55966  |
| .8004  | .9737 56672  | .2275 91616   | .9434 17513  | .1086 50295  |
| 1.8005 | 0.9737 33908 | -0.2276 88990 | 2.9437 26393 | 3.1089 44652 |
| .8006  | .9737 11134  | .2277 86362   | .9440 39302  | .1092 39040  |
| .8007  | .9736 88351  | .2278 83732   | .9443 50240  | .1095 33460  |
| .8008  | .9736 65558  | .2279 81100   | .9446 61208  | .1098 27910  |
| .8009  | .9736 42755  | .2280 78465   | .9449 72206  | .1101 22392  |
| 1.8010 | 0.9736 19942 | -0.2281 75829 | 2.9452 83233 | 3.1104 16905 |
| .8011  | .9735 97119  | .2282 73189   | .9455 94289  | .1107 11449  |
| .8012  | .9735 74287  | .2283 70548   | .9459 05375  | .1110 06024  |
| .8013  | .9735 51445  | .2284 67904   | .9462 16490  | .1113 00630  |
| .8014  | .9735 28594  | .2285 65258   | .9465 27635  | .1115 95267  |
| 1.8015 | 0.9735 05732 | -0.2286 62610 | 2.9468 38210 | 3.1118 89935 |
| .8016  | .9734 82861  | .2287 59959   | .9471 50013  | .1121 84635  |
| .8017  | .9734 59980  | .2288 57307   | .9474 61246  | .1124 79365  |
| .8018  | .9734 37090  | .2289 54651   | .9477 72509  | .1127 74127  |
| .8019  | .9734 14189  | .2290 51994   | .9480 83601  | .1130 68920  |
| 1.8020 | 0.9733 91279 | -0.2291 49334 | 2.9483 95123 | 3.1133 63744 |
| .8021  | .9733 68359  | .2292 46672   | .9487 06474  | .1136 58599  |
| .8022  | .9733 45430  | .2293 44008   | .9490 17855  | .1139 53485  |
| .8023  | .9733 22491  | .2294 41341   | .9493 29265  | .1142 48402  |
| .8024  | .9732 99542  | .2295 38672   | .9496 40704  | .1145 43351  |
| 1.8025 | 0.9732 76583 | -0.2296 36001 | 2.9499 52173 | 3.1148 38331 |
| .8026  | .9732 53614  | .2297 33328   | .9502 63672  | .1151 33341  |
| .8027  | .9732 30636  | .2298 30652   | .9505 75200  | .1154 28383  |
| .8028  | .9732 07648  | .2299 27974   | .9508 86758  | .1157 23456  |
| .8029  | .9731 84651  | .2300 25293   | .9511 98345  | .1160 18561  |
| 1.8030 | 0.9731 61643 | -0.2301 22611 | 2.9515 09961 | 3.1163 13696 |
| .8031  | .9731 38626  | .2302 19926   | .9518 21608  | .1166 08863  |
| .8032  | .9731 15599  | .2303 17239   | .9521 33283  | .1169 04060  |
| .8033  | .9730 92563  | .2304 14549   | .9524 44988  | .1171 99289  |
| .8034  | .9730 69516  | .2305 11857   | .9527 56723  | .1174 94549  |
| 1.8035 | 0.9730 46460 | -0.2306 09163 | 2.9530 68487 | 3.1177 89841 |
| .8036  | .9730 23395  | .2307 06466   | .9533 80281  | .1180 85163  |
| .8037  | .9730 00319  | .2308 03768   | .9536 92104  | .1183 80517  |
| .8038  | .9729 77234  | .2309 01066   | .9540 03957  | .1186 75902  |
| .8039  | .9729 54139  | .2309 98363   | .9543 15839  | .1189 71317  |
| 1.8040 | 0.9729 31034 | -0.2310 95657 | 2.9546 27751 | 3.1192 66765 |
| .8041  | .9729 07920  | .2311 92949   | .9549 39693  | .1195 62243  |
| .8042  | .9728 84796  | .2312 90239   | .9552 51664  | .1198 57753  |
| .8043  | .9728 61662  | .2313 87526   | .9555 63664  | .1201 53293  |
| .8044  | .9728 38518  | .2314 84811   | .9558 75694  | .1204 48865  |
| 1.8045 | 0.9728 15365 | -0.2315 82094 | 2.9561 87754 | 3.1207 44469 |
| .8046  | .9727 92202  | .2316 79374   | .9564 99843  | .1210 40103  |
| .8047  | .9727 69029  | .2317 76652   | .9568 11962  | .1213 35768  |
| .8048  | .9727 45846  | .2318 73928   | .9571 24111  | .1216 31465  |
| .8049  | .9727 22654  | .2319 71201   | .9574 36288  | .1219 27193  |



| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.8050 | 0.9726 99452 | -0.2320 68473 | 2.9577 48496 | 3.1222 22953 |
| .8051  | .9726 76240  | .2321 65741   | .9580 60733  | .1225 18743  |
| .8052  | .9726 53019  | .2322 63008   | .9583 73000  | .1228 14565  |
| .8053  | .9726 29788  | .2323 60272   | .9586 85296  | .1231 10418  |
| .8054  | .9726 06547  | .2324 57534   | .9589 97622  | .1234 06302  |
| 1.8055 | 0.9725 83296 | -0.2325 54793 | 2.9593 09977 | 3.1237 02217 |
| .8056  | .9725 60036  | .2326 52050   | .9596 22362  | .1239 98164  |
| .8057  | .9725 36766  | .2327 49305   | .9599 34777  | .1242 94142  |
| .8058  | .9725 13486  | .2328 46558   | .9602 47221  | .1245 90151  |
| .8059  | .9724 90197  | .2329 43808   | .9605 59695  | .1248 86191  |
| 1.8060 | 0.9724 66997 | -0.2330 41056 | 2.9608 72198 | 3.1251 82263 |
| .8061  | .9724 43588  | .2331 38301   | .9611 84731  | .1254 78365  |
| .8062  | .9724 20270  | .2332 35545   | .9614 97294  | .1257 74500  |
| .8063  | .9723 96941  | .2333 32785   | .9618 09886  | .1260 70665  |
| .8064  | .9723 73603  | .2334 30024   | .9621 22508  | .1263 66862  |
| 1.8065 | 0.9723 50255 | -0.2335 27260 | 2.9624 35160 | 3.1266 63089 |
| .8066  | .9723 26898  | .2336 24494   | .9627 47841  | .1269 59349  |
| .8067  | .9723 03530  | .2337 21725   | .9630 60551  | .1272 55639  |
| .8068  | .9722 80153  | .2338 18955   | .9633 73292  | .1275 51961  |
| .8069  | .9722 56767  | .2339 16182   | .9636 86062  | .1278 48314  |
| 1.8070 | 0.9722 33370 | -0.2340 13406 | 2.9639 98862 | 3.1281 44698 |
| .8071  | .9722 09964  | .2341 10628   | .9643 11691  | .1284 41113  |
| .8072  | .9721 86548  | .2342 07848   | .9646 24550  | .1287 37560  |
| .8073  | .9721 63122  | .2343 05065   | .9649 37438  | .1290 34038  |
| .8074  | .9721 39687  | .2344 02281   | .9652 50357  | .1293 30548  |
| 1.8075 | 0.9721 16242 | -0.2344 99493 | 2.9655 63304 | 3.1296 27088 |
| .8076  | .9720 92787  | .2345 96704   | .9658 76282  | .1299 23660  |
| .8077  | .9720 69322  | .2346 93912   | .9661 89289  | .1302 20264  |
| .8078  | .9720 45848  | .2347 91118   | .9665 02326  | .1305 16898  |
| .8079  | .9720 22364  | .2348 88321   | .9668 15393  | .1308 13564  |
| 1.8080 | 0.9719 98871 | -0.2349 85522 | 2.9671 28489 | 3.1311 10261 |
| .8081  | .9719 75367  | .2350 82721   | .9674 41615  | .1314 06990  |
| .8082  | .9719 51854  | .2351 79917   | .9677 54770  | .1317 03750  |
| .8083  | .9719 28331  | .2352 77111   | .9680 67955  | .1320 00541  |
| .8084  | .9719 04799  | .2353 74303   | .9683 81170  | .1322 97363  |
| 1.8085 | 0.9718 81256 | -0.2354 71492 | 2.9686 94415 | 3.1325 94217 |
| .8086  | .9718 57704  | .2355 68679   | .9690 07689  | .1328 91102  |
| .8087  | .9718 34143  | .2356 65864   | .9693 20993  | .1331 88019  |
| .8088  | .9718 10571  | .2357 63046   | .9696 34327  | .1334 84966  |
| .8089  | .9717 86990  | .2358 60226   | .9699 47690  | .1337 81945  |
| 1.8090 | 0.9717 63399 | -0.2359 57403 | 2.9702 61083 | 3.1340 78956 |
| .8091  | .9717 39798  | .2360 54579   | .9705 74506  | .1343 75998  |
| .8092  | .9717 16188  | .2361 51751   | .9708 87958  | .1346 73071  |
| .8093  | .9716 92568  | .2362 48922   | .9712 01440  | .1349 70175  |
| .8094  | .9716 68938  | .2363 46090   | .9715 14952  | .1352 67311  |
| 1.8095 | 0.9716 45299 | -0.2364 43256 | 2.9718 28494 | 3.1355 64478 |
| .8096  | .9716 21650  | .2365 40419   | .9721 42065  | .1358 61677  |
| .8097  | .9715 97901  | .2366 37580   | .9724 55666  | .1361 58907  |
| .8098  | .9715 74322  | .2367 34739   | .9727 69297  | .1364 56168  |
| .8099  | .9715 50644  | .2368 31895   | .9730 82958  | .1367 53461  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.8100 | 0.9715 26956 | -0.2369 29049 | 2.9733 96648 | 3.1370 50785 |
| .8101  | .9715 03258  | .2370 26200   | .9737 10368  | .1373 49140  |
| .8102  | .9714 79551  | .2371 23349   | .9740 24117  | .1376 45527  |
| .8103  | .9714 55833  | .2372 20496   | .9743 37897  | .1379 42945  |
| .8104  | .9714 32106  | .2373 17641   | .9746 51706  | .1382 40394  |
| 1.8105 | 0.9714 08370 | -0.2374 14783 | 2.9749 65545 | 3.1385 37875 |
| .8106  | .9713 84624  | .2375 11922   | .9752 79414  | .1388 35387  |
| .8107  | .9713 60867  | .2376 09059   | .9755 93312  | .1391 32931  |
| .8108  | .9713 37102  | .2377 06194   | .9759 07240  | .1394 30506  |
| .8109  | .9713 13326  | .2378 03327   | .9762 21198  | .1397 28112  |
| 1.8110 | 0.9712 89541 | -0.2379 00457 | 2.9765 35186 | 3.1400 25750 |
| .8111  | .9712 65746  | .2379 97585   | .9768 49203  | .1403 23419  |
| .8112  | .9712 41942  | .2380 94710   | .9771 63250  | .1406 21120  |
| .8113  | .9712 18127  | .2381 91833   | .9774 77327  | .1409 18852  |
| .8114  | .9711 94303  | .2382 88954   | .9777 91434  | .1412 16615  |
| 1.8115 | 0.9711 70469 | -0.2383 86072 | 2.9781 05571 | 3.1415 14410 |
| .8116  | .9711 46626  | .2384 83188   | .9784 19737  | .1418 12237  |
| .8117  | .9711 22773  | .2385 80301   | .9787 33933  | .1421 10094  |
| .8118  | .9710 98910  | .2386 77412   | .9790 48159  | .1424 07983  |
| .8119  | .9710 75037  | .2387 74521   | .9793 62415  | .1427 05904  |
| 1.8120 | 0.9710 51155 | -0.2388 71627 | 2.9796 76700 | 3.1430 03856 |
| .8121  | .9710 27263  | .2389 68731   | .9799 91016  | .1433 01839  |
| .8122  | .9710 03361  | .2390 65833   | .9803 05361  | .1435 99954  |
| .8123  | .9709 79450  | .2391 62932   | .9806 19736  | .1438 97900  |
| .8124  | .9709 55529  | .2392 60029   | .9809 34140  | .1441 95978  |
| 1.8125 | 0.9709 31598 | -0.2393 57123 | 2.9812 48575 | 3.1444 94087 |
| .8126  | .9709 07657  | .2394 54215   | .9815 63039  | .1447 92228  |
| .8127  | .9708 83707  | .2395 51305   | .9818 77533  | .1450 90400  |
| .8128  | .9708 59747  | .2396 48392   | .9821 92057  | .1453 88603  |
| .8129  | .9708 35777  | .2397 45477   | .9825 06611  | .1456 86838  |
| 1.8130 | 0.9708 11798 | -0.2398 42559 | 2.9828 21194 | 3.1459 85105 |
| .8131  | .9707 87809  | .2399 39639   | .9831 35808  | .1462 83402  |
| .8132  | .9707 63810  | .2400 36717   | .9834 50451  | .1465 81732  |
| .8133  | .9707 39801  | .2401 33792   | .9837 65124  | .1468 80093  |
| .8134  | .9707 15783  | .2402 30865   | .9840 79827  | .1471 78485  |
| 1.8135 | 0.9706 91755 | -0.2403 27935 | 2.9843 94560 | 3.1474 76908 |
| .8136  | .9706 67718  | .2404 25003   | .9847 09323  | .1477 75364  |
| .8137  | .9706 43670  | .2405 22068   | .9850 24115  | .1480 73850  |
| .8138  | .9706 19613  | .2406 19132   | .9853 38937  | .1483 72369  |
| .8139  | .9705 95546  | .2407 16192   | .9856 53789  | .1486 70918  |
| 1.8140 | 0.9705 71470 | -0.2408 13251 | 2.9859 68672 | 3.1489 69499 |
| .8141  | .9705 47394  | .2409 10307   | .9862 83583  | .1492 68112  |
| .8142  | .9705 23288  | .2410 07360   | .9865 98525  | .1495 66756  |
| .8143  | .9704 99182  | .2411 04411   | .9869 13497  | .1498 65432  |
| .8144  | .9704 75067  | .2412 01460   | .9872 28498  | .1501 64139  |
| 1.8145 | 0.9704 50942 | -0.2412 98506 | 2.9875 43530 | 3.1504 62877 |
| .8146  | .9704 26807  | .2413 95550   | .9878 58591  | .1507 61647  |
| .8147  | .9704 02663  | .2414 92592   | .9881 73682  | .1510 60449  |
| .8148  | .9703 78509  | .2415 89631   | .9884 88803  | .1513 59282  |
| .8149  | .9703 54345  | .2416 86667   | .9888 03954  | .1516 58147  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.8150 | 0.9703 30171 | -0.2417 83702 | 2.9891 19135 | 3.1519 57043 |
| .8151  | .9703 05988  | .2418 80735   | .9894 34345  | .1522 55971  |
| .8152  | .9702 81795  | .2419 77763   | .9897 49586  | .1525 54930  |
| .8153  | .9702 57593  | .2420 74790   | .9900 64856  | .1528 53921  |
| .8154  | .9702 33380  | .2421 71814   | .9903 80157  | .1531 52943  |
| 1.8155 | 0.9702 09158 | -0.2422 68836 | 2.9906 95487 | 3.1534 51997 |
| .8156  | .9701 84927  | .2423 65856   | .9910 10847  | .1537 51082  |
| .8157  | .9701 60685  | .2424 62873   | .9913 26237  | .1540 50189  |
| .8158  | .9701 36434  | .2425 59888   | .9916 41657  | .1543 49347  |
| .8159  | .9701 12173  | .2426 56901   | .9919 57107  | .1546 48527  |
| 1.8160 | 0.9700 87903 | -0.2427 53911 | 2.9922 72587 | 3.1549 47739 |
| .8161  | .9700 63622  | .2428 50918   | .9925 88096  | .1552 46982  |
| .8162  | .9700 39332  | .2429 47923   | .9929 03636  | .1555 46256  |
| .8163  | .9700 15033  | .2430 44926   | .9932 19206  | .1558 45562  |
| .8164  | .9699 90723  | .2431 41926   | .9935 34805  | .1561 44900  |
| 1.8165 | 0.9699 66404 | -0.2432 38924 | 2.9938 50435 | 3.1564 44269 |
| .8166  | .9699 42076  | .2433 35920   | .9941 66094  | .1567 43670  |
| .8167  | .9699 17737  | .2434 32913   | .9944 81783  | .1570 43102  |
| .8168  | .9698 93389  | .2435 29903   | .9947 97503  | .1573 42566  |
| .8169  | .9698 69031  | .2436 26891   | .9951 13252  | .1576 42062  |
| 1.8170 | 0.9698 44664 | -0.2437 23877 | 2.9954 29031 | 3.1579 41589 |
| .8171  | .9698 20286  | .2438 20860   | .9957 44840  | .1582 41148  |
| .8172  | .9697 95900  | .2439 17841   | .9960 60679  | .1585 40738  |
| .8173  | .9697 71503  | .2440 14820   | .9963 76548  | .1588 40360  |
| .8174  | .9697 47097  | .2441 11795   | .9966 92447  | .1591 40013  |
| 1.8175 | 0.9697 22681 | -0.2442 08769 | 2.9970 08376 | 3.1594 39698 |
| .8176  | .9696 98255  | .2443 05740   | .9973 24335  | .1597 39415  |
| .8177  | .9696 73819  | .2444 02709   | .9976 40324  | .1600 39163  |
| .8178  | .9696 49374  | .2444 99675   | .9979 56343  | .1603 38943  |
| .8179  | .9696 24919  | .2445 96638   | .9982 72392  | .1606 38755  |
| 1.8180 | 0.9696 00455 | -0.2446 93600 | 2.9985 88471 | 3.1609 38598 |
| .8181  | .9695 75981  | .2447 90559   | .9989 04580  | .1612 38472  |
| .8182  | .9695 51497  | .2448 87515   | .9992 20719  | .1615 38379  |
| .8183  | .9695 27003  | .2449 84469   | .9995 36887  | .1618 38316  |
| .8184  | .9695 02500  | .2450 81420   | .9998 53086  | .1621 38286  |
| 1.8185 | 0.9694 77987 | -0.2451 78369 | 3.0001 69315 | 3.1624 38287 |
| .8186  | .9694 53464  | .2452 75316   | .0004 85574  | .1627 38320  |
| .8187  | .9694 28932  | .2453 72260   | .0008 01863  | .1630 38384  |
| .8188  | .9694 04390  | .2454 69202   | .0011 18182  | .1633 38480  |
| .8189  | .9693 79838  | .2455 66141   | .0014 34530  | .1636 38608  |
| 1.8190 | 0.9693 55277 | -0.2456 63078 | 2.0017 50909 | 3.1639 38767 |
| .8191  | .9693 30705  | .2457 60012   | .0020 67318  | .1642 38958  |
| .8192  | .9693 06125  | .2458 56944   | .0023 83757  | .1645 39180  |
| .8193  | .9692 81534  | .2459 53873   | .0027 00226  | .1648 39435  |
| .8194  | .9692 56934  | .2460 50800   | .0030 16725  | .1651 39721  |
| 1.8195 | 0.9692 32324 | -0.2461 47725 | 3.0033 33254 | 3.1654 40038 |
| .8196  | .9692 07704  | .2462 44647   | .0036 49813  | .1657 40387  |
| .8197  | .9691 83075  | .2463 41566   | .0039 66402  | .1660 40768  |
| .8198  | .9691 58436  | .2464 38483   | .0042 83021  | .1663 41180  |
| .8199  | .9691 33787  | .2465 35398   | .0045 99670  | .1666 41625  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.8200 | 0.9691 09129 | -0.2466 32310 | 3.0049 13349 | 3.1369 42100 |
| .8201  | .9690 84461  | .2437 29220   | .0052 53059  | .1372 42608  |
| .8202  | .9690 59783  | .2468 26127   | .0055 49798  | .1375 43147  |
| .8203  | .9690 35096  | .2469 23032   | .0058 46537  | .1378 43718  |
| .8204  | .9690 10398  | .2470 19334   | .0061 43367  | .1381 44320  |
| 1.8205 | 0.9689 85692 | -0.2471 16834 | 3.0065 00186 | 3.1384 44055 |
| .8206  | .9689 60975  | .2472 13731   | .0068 17058  | .1387 44620  |
| .8207  | .9689 36249  | .2473 10626   | .0071 13945  | .1390 45181  |
| .8208  | .9689 11513  | .2474 07518   | .0074 10865  | .1393 45747  |
| .8209  | .9688 86767  | .2475 04408   | .0077 67615  | .1396 47808  |
| 1.8210 | 0.9688 62012 | -0.2476 01296 | 3.0080 34795 | 3.1399 48601 |
| .8211  | .9688 37247  | .2476 98181   | .0084 01604  | .1702 49425  |
| .8212  | .9688 12472  | .2477 95063   | .0087 18244  | .1705 50281  |
| .8213  | .9687 87688  | .2478 91943   | .0090 35915  | .1708 51169  |
| .8214  | .9687 62894  | .2479 88821   | .0093 53015  | .1711 52088  |
| 1.8215 | 0.9687 38090 | -0.2480 85696 | 3.0096 70145 | 3.1714 53039 |
| .8216  | .9687 13277  | .2481 82568   | .0099 87305  | .1717 54022  |
| .8217  | .9686 88454  | .2482 79438   | .0103 04496  | .1720 55037  |
| .8218  | .9686 63621  | .2483 76306   | .0106 21716  | .1723 56083  |
| .8219  | .9686 38779  | .2484 73171   | .0109 38967  | .1726 57161  |
| 1.8220 | 0.9686 13926 | -0.2485 70034 | 3.0112 56248 | 3.1729 58271 |
| .8221  | .9685 89065  | .2486 66894   | .0115 73559  | .1732 59412  |
| .8222  | .9685 64193  | .2487 63751   | .0118 90900  | .1735 60586  |
| .8223  | .9685 39312  | .2488 60607   | .0122 08271  | .1738 61791  |
| .8224  | .9685 14421  | .2489 57459   | .0125 25672  | .1741 63027  |
| 1.8225 | 0.9684 89520 | -0.2490 54310 | 3.0128 43103 | 3.1744 64296 |
| .8226  | .9684 64610  | .2491 51157   | .0131 60565  | .1747 65596  |
| .8227  | .9684 39690  | .2492 48002   | .0134 78056  | .1750 66928  |
| .8228  | .9684 14760  | .2493 44845   | .0137 95578  | .1753 68292  |
| .8229  | .9683 89821  | .2494 41685   | .0141 13130  | .1756 69687  |
| 1.8230 | 0.9683 64872 | -0.2495 38523 | 3.0144 30712 | 3.1759 71114 |
| .8231  | .9683 39913  | .2496 35358   | .0147 48324  | .1762 72573  |
| .8232  | .9683 14945  | .2497 32191   | .0150 65967  | .1765 74064  |
| .8233  | .9682 89967  | .2498 29021   | .0153 83639  | .1768 75586  |
| .8234  | .9682 64979  | .2499 25849   | .0157 01342  | .1771 77141  |
| 1.8235 | 0.9682 39982 | -0.2500 22674 | 3.0160 19075 | 3.1774 78727 |
| .8236  | .9682 14975  | .2501 19497   | .0163 36838  | .1777 80344  |
| .8237  | .9681 89958  | .2502 16317   | .0166 54631  | .1780 81994  |
| .8238  | .9681 64931  | .2503 13135   | .0169 72454  | .1783 83675  |
| .8239  | .9681 39895  | .2504 09950   | .0172 90307  | .1786 85389  |
| 1.8240 | 0.9681 14849 | -0.2505 06763 | 3.0176 08191 | 3.1789 87133 |
| .8241  | .9680 89794  | .2506 03573   | .0179 26105  | .1792 88910  |
| .8242  | .9680 64729  | .2507 00381   | .0182 44049  | .1795 90719  |
| .8243  | .9680 39654  | .2507 97186   | .0185 62023  | .1798 92559  |
| .8244  | .9680 14569  | .2508 93989   | .0188 80027  | .1801 94431  |
| 1.8245 | 0.9679 89475 | -0.2509 90789 | 3.0191 98062 | 3.1804 96335 |
| .8246  | .9679 64371  | .2510 87587   | .0195 16127  | .1807 98271  |
| .8247  | .9679 39258  | .2511 84382   | .0198 34222  | .1811 00238  |
| .8248  | .9679 14134  | .2512 81175   | .0201 52347  | .1814 02258  |
| .8249  | .9678 89001  | .2513 77965   | .0204 70502  | .1817 04269  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.8250 | 0.9678 63859 | -0.2514 74753 | 3.0207 88687 | 3.1820 06332 |
| .8251  | .9678 38706  | .2515 71538   | .0211 06903  | .1823 08426  |
| .8252  | .9678 13544  | .2516 68320   | .0214 25149  | .1826 10553  |
| .8253  | .9677 88373  | .2517 65100   | .0217 43425  | .1829 12711  |
| .8254  | .9677 63191  | .2518 61878   | .0220 61732  | .1832 14902  |
| 1.8255 | 0.9677 38000 | -0.2519 58653 | 3.0223 80068 | 3.1835 17124 |
| .8256  | .9677 12800  | .2520 55426   | .0226 98435  | .1838 19378  |
| .8257  | .9676 87589  | .2521 52196   | .0230 16832  | .1841 21663  |
| .8258  | .9676 62369  | .2522 48963   | .0233 35259  | .1844 23981  |
| .8259  | .9676 37139  | .2523 45728   | .0236 53717  | .1847 26331  |
| 1.8260 | 0.9676 11900 | -0.2524 42490 | 3.0239 72205 | 3.1850 28712 |
| .8261  | .9675 86651  | .2525 39250   | .0242 90723  | .1853 31125  |
| .8262  | .9675 61392  | .2526 36008   | .0246 09271  | .1856 33570  |
| .8263  | .9675 36124  | .2527 32763   | .0249 27849  | .1859 36047  |
| .8264  | .9675 10846  | .2528 29515   | .0252 46458  | .1862 38556  |
| 1.8265 | 0.9674 85558 | -0.2529 26265 | 3.0255 65097 | 3.1865 41096 |
| .8266  | .9674 60260  | .2530 23012   | .0258 83766  | .1868 43669  |
| .8267  | .9674 34953  | .2531 19757   | .0262 02466  | .1871 46273  |
| .8268  | .9674 09636  | .2532 16499   | .0265 21196  | .1874 48909  |
| .8269  | .9673 84310  | .2533 13239   | .0268 39956  | .1877 51577  |
| 1.8270 | 0.9673 58974 | -0.2534 09976 | 3.0271 58746 | 3.1880 54277 |
| .8271  | .9673 33628  | .2535 06711   | .0274 77567  | .1883 57009  |
| .8272  | .9673 08272  | .2536 03443   | .0277 96417  | .1886 59773  |
| .8273  | .9672 82907  | .2537 00172   | .0281 15298  | .1889 62568  |
| .8274  | .9672 57532  | .2537 96899   | .0284 34210  | .1892 65396  |
| 1.8275 | 0.9672 32148 | -0.2538 93624 | 3.0287 53152 | 3.1895 68255 |
| .8276  | .9672 06754  | .2539 90346   | .0290 72124  | .1898 71146  |
| .8277  | .9671 81350  | .2540 87065   | .0293 91126  | .1901 74069  |
| .8278  | .9671 55936  | .2541 83782   | .0297 10158  | .1904 77024  |
| .8279  | .9671 30513  | .2542 80496   | .0300 29221  | .1907 80011  |
| 1.8280 | 0.9671 05080 | -0.2543 77208 | 3.0303 48314 | 3.1910 83030 |
| .8281  | .9670 79638  | .2544 73917   | .0306 67438  | .1913 86081  |
| .8282  | .9670 54185  | .2545 70624   | .0309 86592  | .1916 89164  |
| .8283  | .9670 28723  | .2546 67328   | .0313 05776  | .1919 92278  |
| .8284  | .9670 03252  | .2547 64030   | .0316 24990  | .1922 95425  |
| 1.8285 | 0.9669 77771 | -0.2548 60729 | 3.0319 44235 | 3.1925 98603 |
| .8286  | .9669 52280  | .2549 57425   | .0322 63510  | .1929 01814  |
| .8287  | .9669 26779  | .2550 54119   | .0325 82815  | .1932 05056  |
| .8288  | .9669 01269  | .2551 50811   | .0329 02151  | .1935 08330  |
| .8289  | .9668 75749  | .2552 47500   | .0332 21517  | .1938 11637  |
| 1.8290 | 0.9668 50219 | -0.2553 44186 | 3.0335 40913 | 3.1941 14975 |
| .8291  | .9668 24680  | .2554 40870   | .0338 60340  | .1944 18345  |
| .8292  | .9667 99131  | .2555 37551   | .0341 79797  | .1947 21747  |
| .8293  | .9667 73573  | .2556 34229   | .0344 99284  | .1950 25181  |
| .8294  | .9667 48004  | .2557 30905   | .0348 18802  | .1953 28647  |
| 1.8295 | 0.9667 22426 | -0.2558 27579 | 3.0351 38350 | 3.1956 32144 |
| .8296  | .9666 96839  | .2559 24250   | .0354 57928  | .1959 35674  |
| .8297  | .9666 71242  | .2560 20918   | .0357 77537  | .1962 39236  |
| .8298  | .9666 45635  | .2561 17584   | .0360 97176  | .1965 42830  |
| .8299  | .9666 20018  | .2562 14248   | .0364 16846  | .1968 46455  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.8300 | 0.9665 94392 | -0.2563 10908 | 3.0367 36545 | 3.1971 50113 |
| .8301  | .9665 68756  | .2564 07566   | .0370 56276  | .1974 53303  |
| .8302  | .9665 43110  | .2565 04222   | .0373 76036  | .1977 57524  |
| .8303  | .9665 17455  | .2566 00875   | .0376 95827  | .1980 61278  |
| .8304  | .9664 91790  | .2566 97525   | .0380 15648  | .1983 65064  |
| 1.8305 | 0.9664 66116 | -0.2567 94173 | 3.0383 35500 | 3.1986 68861 |
| .8306  | .9664 40431  | .2568 90819   | .0386 55382  | .1989 72731  |
| .8307  | .9664 14737  | .2569 87461   | .0389 75295  | .1992 76612  |
| .8308  | .9663 89034  | .2570 84102   | .0392 95237  | .1995 80526  |
| .8309  | .9663 63321  | .2571 80739   | .0396 15211  | .1998 84471  |
| 1.8310 | 0.9663 37598 | -0.2572 77374 | 3.0399 35214 | 3.2001 88449 |
| .8311  | .9663 11865  | .2573 74007   | .0402 55248  | .2004 92458  |
| .8312  | .9662 86123  | .2574 70637   | .0405 75313  | .2007 96500  |
| .8313  | .9662 60371  | .2575 67264   | .0408 95408  | .2011 00573  |
| .8314  | .9662 34609  | .2576 63889   | .0412 15533  | .2014 04679  |
| 1.8315 | 0.9662 08838 | -0.2577 60511 | 3.0415 35689 | 3.2017 08816 |
| .8316  | .9661 83057  | .2578 57131   | .0418 55875  | .2020 12986  |
| .8317  | .9661 57267  | .2579 53748   | .0421 76091  | .2023 17188  |
| .8318  | .9661 31467  | .2580 50362   | .0424 96338  | .2026 21421  |
| .8319  | .9661 05657  | .2581 46974   | .0428 16616  | .2029 25687  |
| 1.8320 | 0.9660 79837 | -0.2582 43583 | 3.0431 36923 | 3.2032 29985 |
| .8321  | .9660 54008  | .2583 40190   | .0434 57262  | .2035 34314  |
| .8322  | .9660 28169  | .2584 36794   | .0437 77630  | .2038 38676  |
| .8323  | .9660 02321  | .2585 33395   | .0440 98029  | .2041 43070  |
| .8324  | .9659 76462  | .2586 29994   | .0444 18459  | .2044 47496  |
| 1.8325 | 0.9659 50595 | -0.2587 26591 | 3.0447 38919 | 3.2047 51954 |
| .8326  | .9659 24717  | .2588 23184   | .0450 59409  | .2050 56443  |
| .8327  | .9658 98830  | .2589 19776   | .0453 79930  | .2053 60965  |
| .8328  | .9658 72933  | .2590 16364   | .0457 00481  | .2056 65519  |
| .8329  | .9658 47027  | .2591 12950   | .0460 21063  | .2059 70106  |
| 1.8330 | 0.9658 21111 | -0.2592 09534 | 3.0463 41675 | 3.2062 74724 |
| .8331  | .9657 95185  | .2593 06114   | .0466 62318  | .2065 79374  |
| .8332  | .9657 69249  | .2594 02693   | .0469 82991  | .2068 84056  |
| .8333  | .9657 43304  | .2594 99268   | .0473 03695  | .2071 88770  |
| .8334  | .9657 17350  | .2595 95841   | .0476 24429  | .2074 93517  |
| 1.8335 | 0.9656 91385 | -0.2596 92412 | 3.0479 45194 | 3.2077 98295 |
| .8336  | .9656 65411  | .2597 88980   | .0482 65989  | .2081 03106  |
| .8337  | .9656 39427  | .2598 85545   | .0485 86814  | .2084 07949  |
| .8338  | .9656 13434  | .2599 82108   | .0489 07670  | .2087 12823  |
| .8339  | .9655 87431  | .2600 78668   | .0492 28557  | .2090 17730  |
| 1.8340 | 0.9655 61418 | -0.2601 75225 | 3.0495 49474 | 3.2093 22669 |
| .8341  | .9655 35396  | .2602 71780   | .0498 70421  | .2096 27640  |
| .8342  | .9655 09364  | .2603 68332   | .0501 91399  | .2099 32643  |
| .8343  | .9654 83322  | .2604 64882   | .0505 12408  | .2102 37678  |
| .8344  | .9654 57271  | .2605 61429   | .0508 33447  | .2105 42746  |
| 1.8345 | 0.9654 31210 | -0.2606 57973 | 3.0511 54516 | 3.2108 47845 |
| .8346  | .9654 05139  | .2607 54515   | .0514 75616  | .2111 52976  |
| .8347  | .9653 79059  | .2608 51054   | .0517 96747  | .2114 58140  |
| .8348  | .9653 52969  | .2609 47591   | .0521 17908  | .2117 63336  |
| .8349  | .9653 26869  | .2610 44125   | .0524 39100  | .2120 68564  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.8350 | 0.9653 00760 | -0.2611 40656 | 3.0527 60322 | 3.2123 73824 |
| .8351  | .9652 74841  | .2612 37185   | .0530 81574  | .2126 79116  |
| .8352  | .9652 48513  | .2613 33711   | .0534 02858  | .2129 84440  |
| .8353  | .9652 22375  | .2614 30235   | .0537 24171  | .2132 89796  |
| .8354  | .9651 96227  | .2615 26756   | .0540 45516  | .2135 95185  |
| 1.8355 | 0.9651 70069 | -0.2616 23274 | 3.0543 66890 | 3.2139 00605 |
| .8356  | .9651 43902  | .2617 19790   | .0546 88296  | .2142 06058  |
| .8357  | .9651 17725  | .2618 16303   | .0550 09732  | .2145 11543  |
| .8358  | .9650 91539  | .2619 12813   | .0553 31198  | .2148 17060  |
| .8359  | .9650 65343  | .2620 09321   | .0556 52695  | .2151 22609  |
| 1.8360 | 0.9650 39137 | -0.2621 05826 | 3.0559 74223 | 3.2154 28191 |
| .8361  | .9650 12922  | .2622 02329   | .0562 95781  | .2157 33804  |
| .8362  | .9649 86696  | .2622 98829   | .0566 17369  | .2160 39450  |
| .8363  | .9649 60462  | .2623 95326   | .0569 38989  | .2163 45128  |
| .8364  | .9649 34217  | .2624 91821   | .0572 60638  | .2166 50838  |
| 1.8365 | 0.9649 07963 | -0.2625 88313 | 3.0575 82319 | 3.2169 56580 |
| .8366  | .9648 81700  | .2626 84802   | .0579 04030  | .2172 62354  |
| .8367  | .9648 55426  | .2627 81289   | .0582 25771  | .2175 68161  |
| .8368  | .9648 29144  | .2628 77774   | .0585 47543  | .2178 73999  |
| .8369  | .9648 02851  | .2629 74255   | .0588 69346  | .2181 79870  |
| 1.8370 | 0.9647 76549 | -0.2630 70734 | 3.0591 91179 | 3.2184 85773 |
| .8371  | .9647 50237  | .2631 67210   | .0595 13043  | .2187 91708  |
| .8372  | .9647 23915  | .2632 63684   | .0598 34938  | .2190 97676  |
| .8373  | .9646 97584  | .2633 60155   | .0601 56863  | .2194 03675  |
| .8374  | .9646 71243  | .2634 56624   | .0604 78818  | .2197 09707  |
| 1.8375 | 0.9646 44893 | -0.2635 53089 | 3.0608 00805 | 3.2200 15771 |
| .8376  | .9646 18533  | .2636 49553   | .0611 22822  | .2203 21867  |
| .8377  | .9645 92163  | .2637 46013   | .0614 44869  | .2206 27996  |
| .8378  | .9645 65783  | .2638 42471   | .0617 66947  | .2209 34156  |
| .8379  | .9645 39394  | .2639 38926   | .0620 89056  | .2212 40349  |
| 1.8380 | 0.9645 12996 | -0.2640 35379 | 3.0624 11195 | 3.2215 46574 |
| .8381  | .9644 86587  | .2641 31829   | .0627 33365  | .2218 52831  |
| .8382  | .9644 60169  | .2642 28276   | .0630 55566  | .2221 59121  |
| .8383  | .9644 33742  | .2643 24721   | .0633 77797  | .2224 65442  |
| .8384  | .9644 07304  | .2644 21163   | .0637 00059  | .2227 71796  |
| 1.8385 | 0.9643 80857 | -0.2645 17602 | 3.0640 22351 | 3.2230 78182 |
| .8386  | .9643 54401  | .2646 14039   | .0643 44674  | .2233 84601  |
| .8387  | .9643 27935  | .2647 10473   | .0646 67028  | .2236 91051  |
| .8388  | .9643 01459  | .2648 06905   | .0649 89413  | .2239 97534  |
| .8389  | .9642 74973  | .2649 03334   | .0653 11828  | .2243 04049  |
| 1.8390 | 0.9642 48478 | -0.2649 99760 | 3.0656 34274 | 3.2246 10596 |
| .8391  | .9642 21973  | .2650 96183   | .0659 56750  | .2249 17176  |
| .8392  | .9641 95459  | .2651 92604   | .0662 79257  | .2252 23788  |
| .8393  | .9641 68935  | .2652 89022   | .0666 01795  | .2255 30432  |
| .8394  | .9641 42401  | .2653 85438   | .0669 24363  | .2258 37108  |
| 1.8395 | 0.9641 15858 | -0.2654 81851 | 3.0672 46962 | 3.2261 43817 |
| .8396  | .9640 89305  | .2655 78261   | .0675 69592  | .2264 50558  |
| .8397  | .9640 62742  | .2656 74669   | .0678 92252  | .2267 57331  |
| .8398  | .9640 36170  | .2657 71074   | .0682 14943  | .2270 64136  |
| .8399  | .9640 09588  | .2658 67476   | .0685 37665  | .2273 70974  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.8400 | 0.9639 82996 | -0.2659 63876 | 3.0688 60417 | 3.3276 77644 |
| .8401  | .9639 56395  | .2660 60273   | .0691 83201  | .2279 84746  |
| .8402  | .9639 29784  | .2661 56667   | .0695 06014  | .2282 91680  |
| .8403  | .9639 03164  | .2662 53059   | .0698 28859  | .2285 96647  |
| .8404  | .9638 76533  | .2663 49448   | .0701 51734  | .2289 05646  |
| 1.8405 | 0.9638 49894 | -0.2664 45834 | 3.0704 74640 | 3.2292 12677 |
| .8406  | .9638 23244  | .2665 42217   | .0707 97577  | .2295 19741  |
| .8407  | .9637 96585  | .2666 38598   | .0711 20544  | .2298 26637  |
| .8408  | .9637 69917  | .2667 34977   | .0714 43542  | .2301 33965  |
| .8409  | .9637 43238  | .2668 31352   | .0717 66571  | .2304 41126  |
| 1.8410 | 0.9637 16550 | -0.2669 27725 | 3.0720 89630 | 3.2307 48318 |
| .8411  | .9636 89853  | .2670 24096   | .0724 12720  | .2310 55543  |
| .8412  | .9636 63146  | .2671 20463   | .0727 35841  | .2313 62801  |
| .8413  | .9636 36429  | .2672 16828   | .0730 58993  | .2316 70091  |
| .8414  | .9636 09702  | .2673 13191   | .0733 82175  | .2319 77413  |
| 1.8415 | 0.9635 82966 | -0.2674 09550 | 3.0737 05389 | 3.2322 84767 |
| .8416  | .9635 56220  | .2675 05907   | .0740 28632  | .2325 92154  |
| .8417  | .9635 29465  | .2676 02262   | .0743 51907  | .2328 99573  |
| .8418  | .9635 02700  | .2676 98613   | .0746 75212  | .2332 07024  |
| .8419  | .9634 75925  | .2677 94962   | .0749 98548  | .2335 14508  |
| 1.8420 | 0.9634 49141 | -0.2678 91308 | 3.0753 21915 | 3.2338 22024 |
| .8421  | .9634 22347  | .2679 87652   | .0756 45313  | .2341 29572  |
| .8422  | .9633 95543  | .2680 83993   | .0759 68741  | .2344 37153  |
| .8423  | .9633 68730  | .2681 80331   | .0762 92200  | .2347 44766  |
| .8424  | .9633 41907  | .2682 76667   | .0766 15690  | .2350 52411  |
| 1.8425 | 0.9633 15075 | -0.2683 72999 | 3.0769 39211 | 3.2353 60089 |
| .8426  | .9632 88233  | .2684 69330   | .0772 62762  | .2356 67799  |
| .8427  | .9632 61381  | .2685 65657   | .0775 86344  | .2359 75542  |
| .8428  | .9632 34519  | .2686 61982   | .0779 09957  | .2362 83316  |
| .8429  | .9632 07648  | .2687 58304   | .0782 33601  | .2365 91124  |
| 1.8430 | 0.9631 80768 | -0.2688 54623 | 3.0785 57275 | 3.2368 98963 |
| .8431  | .9631 53878  | .2689 50940   | .0788 80981  | .2372 06835  |
| .8432  | .9631 26978  | .2690 47254   | .0792 04717  | .2375 14739  |
| .8433  | .9631 00068  | .2691 43566   | .0795 28484  | .2378 22676  |
| .8434  | .9630 73149  | .2692 39874   | .0798 52281  | .2381 30645  |
| 1.8435 | 0.9630 46220 | -0.2693 36180 | 3.0801 76110 | 3.2384 38647 |
| .8436  | .9630 19282  | .2694 32483   | .0804 99969  | .2387 46680  |
| .8437  | .9629 92334  | .2695 28784   | .0808 23859  | .2390 54746  |
| .8438  | .9629 65376  | .2696 25082   | .0811 47780  | .2393 62845  |
| .8439  | .9629 38409  | .2697 21377   | .0814 71732  | .2396 70976  |
| 1.8440 | 0.9629 11432 | -0.2698 17670 | 3.0817 95714 | 3.2399 79139 |
| .8441  | .9628 84445  | .2699 13959   | .0821 19728  | .2402 87335  |
| .8442  | .9628 57449  | .2700 10246   | .0824 43772  | .2405 95563  |
| .8443  | .9628 30443  | .2701 06531   | .0827 67847  | .2409 03824  |
| .8444  | .9628 03428  | .2702 02813   | .0830 91952  | .2412 12117  |
| 1.8445 | 0.9627 76402 | -0.2702 99092 | 3.0834 16089 | 3.2415 20442 |
| .8446  | .9627 49368  | .2703 95368   | .0837 40257  | .2418 28800  |
| .8447  | .9627 22323  | .2704 91641   | .0840 64455  | .2421 37190  |
| .8448  | .9626 95269  | .2705 87912   | .0843 88684  | .2424 45613  |
| .8449  | .9626 68206  | .2706 84180   | .0847 12944  | .2427 54068  |



| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.8450 | 0.9626 41133 | -0.2707 80446 | 3.0850 37235 | 3.2430 62556 |
| .8451  | .9626 14050  | .2708 76709   | .0853 61556  | .2433 71076  |
| .8452  | .9625 86957  | .2709 72969   | .0856 85909  | .2436 79628  |
| .8453  | .9625 59855  | .2710 69226   | .0860 10292  | .2439 88213  |
| .8454  | .9625 32743  | .2711 65481   | .0863 34707  | .2442 96830  |
| 1.8455 | 0.9625 05622 | -0.2712 61733 | 3.0866 59152 | 3.2446 05480 |
| .8456  | .9624 78491  | .2713 57982   | .0869 83628  | .2449 14132  |
| .8457  | .9624 51350  | .2714 54228   | .0873 08135  | .2452 22876  |
| .8458  | .9624 24200  | .2715 50472   | .0876 32672  | .2455 31623  |
| .8459  | .9623 97040  | .2716 46713   | .0879 57241  | .2458 40403  |
| 1.8460 | 0.9623 69871 | -0.2717 42952 | 3.0882 81840 | 3.2461 49215 |
| .8461  | .9623 42692  | .2718 39187   | .0886 06471  | .2464 58059  |
| .8462  | .9623 15503  | .2719 35420   | .0889 31132  | .2467 66936  |
| .8463  | .9622 88305  | .2720 31650   | .0892 55824  | .2470 75846  |
| .8464  | .9622 61097  | .2721 27878   | .0895 80547  | .2473 84787  |
| 1.8465 | 0.9622 33879 | -0.2722 24102 | 3.0899 05301 | 3.2476 93762 |
| .8466  | .9622 06652  | .2723 20325   | .0902 30086  | .2480 02768  |
| .8467  | .9621 79415  | .2724 16544   | .0905 54902  | .2483 11808  |
| .8468  | .9621 52169  | .2725 12760   | .0908 79748  | .2486 20879  |
| .8469  | .9621 24912  | .2726 08974   | .0912 04626  | .2489 29984  |
| 1.8470 | 0.9620 97647 | -0.2727 05185 | 3.0915 29534 | 3.2492 39120 |
| .8471  | .9620 70371  | .2728 01394   | .0918 54474  | .2495 48290  |
| .8472  | .9620 43086  | .2728 97599   | .0921 79444  | .2498 57491  |
| .8473  | .9620 15792  | .2729 93802   | .0925 04445  | .2501 66725  |
| .8474  | .9619 88488  | .2730 90003   | .0928 29477  | .2504 75992  |
| 1.8475 | 0.9619 61174 | -0.2731 86200 | 3.0931 54540 | 3.2507 85291 |
| .8476  | .9619 33850  | .2732 82395   | .0934 79634  | .2510 94623  |
| .8477  | .9619 06517  | .2733 78587   | .0938 04759  | .2514 03987  |
| .8478  | .9618 79175  | .2734 74776   | .0941 29915  | .2517 13384  |
| .8479  | .9618 51822  | .2735 70963   | .0944 55102  | .2520 22813  |
| 1.8480 | 0.9618 24461 | -0.2736 67147 | 3.0947 80320 | 3.2523 32275 |
| .8481  | .9617 97089  | .2737 63328   | .0951 05568  | .2526 41769  |
| .8482  | .9617 69708  | .2738 59506   | .0954 30848  | .2529 51296  |
| .8483  | .9617 42317  | .2739 55682   | .0957 56159  | .2532 60855  |
| .8484  | .9617 14917  | .2740 51854   | .0960 81500  | .2535 70447  |
| 1.8485 | 0.9616 87507 | -0.2741 48025 | 3.0964 06873 | 3.2538 80072 |
| .8486  | .9616 60087  | .2742 44192   | .0967 32276  | .2541 89729  |
| .8487  | .9616 32658  | .2743 40357   | .0970 57711  | .2544 99418  |
| .8488  | .9616 05219  | .2744 36518   | .0973 83176  | .2548 09140  |
| .8489  | .9615 77771  | .2745 32678   | .0977 08673  | .2551 18895  |
| 1.8490 | 0.9615 50313 | -0.2746 28834 | 3.0980 34200 | 3.2554 28682 |
| .8491  | .9615 22845  | .2747 24988   | .0983 59758  | .2557 38502  |
| .8492  | .9614 95368  | .2748 21139   | .0986 85348  | .2560 48354  |
| .8493  | .9614 67881  | .2749 17287   | .0990 10968  | .2563 58239  |
| .8494  | .9614 40384  | .2750 13432   | .0993 36619  | .2566 68156  |
| 1.8495 | 0.9614 12878 | -0.2751 09575 | 3.0996 62302 | 3.2569 78106 |
| .8496  | .9613 85362  | .2752 05715   | .0999 88015  | .2572 88089  |
| .8497  | .9613 57837  | .2753 01852   | .1003 13759  | .2575 98104  |
| .8498  | .9613 30302  | .2753 97986   | .1006 39534  | .2579 08151  |
| .8499  | .9613 02757  | .2754 94118   | .1009 65341  | .2582 18232  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.8500 | 0.9612 73203 | -0.2755 80247 | 3.1012 91178 | 3.2585 25344 |
| .8501  | .9612 47639  | .2756 86373   | .1016 17046  | .2586 26480  |
| .8502  | .9612 20066  | .2757 82496   | .1019 42946  | .2591 48668  |
| .8503  | .9611 92453  | .2758 78627   | .1022 68676  | .2594 58878  |
| .8504  | .9611 64890  | .2759 74755   | .1025 94836  | .2597 69122  |
| 1.8505 | 0.9611 37288 | -0.2760 70850 | 3.1029 20830 | 3.2600 79397 |
| .8506  | .9611 09676  | .2761 66962   | .1032 46853  | .2603 99706  |
| .8507  | .9610 82054  | .2762 63072   | .1035 72909  | .2607 00047  |
| .8508  | .9610 54423  | .2763 59179   | .1038 98984  | .2610 10420  |
| .8509  | .9610 26782  | .2764 55283   | .1042 25110  | .2613 20827  |
| 1.8510 | 0.9609 99132 | -0.2765 51384 | 3.1045 51258 | 3.2616 31265 |
| .8511  | .9609 71472  | .2766 47483   | .1048 77436  | .2619 41737  |
| .8512  | .9609 43803  | .2767 43575   | .1052 03646  | .2622 52241  |
| .8513  | .9609 16123  | .2768 39671   | .1055 29857  | .2625 62778  |
| .8514  | .9608 88435  | .2769 35762   | .1058 56159  | .2628 73347  |
| 1.8515 | 0.9608 60736 | -0.2770 31849 | 3.1061 82461 | 3.2631 83949 |
| .8516  | .9608 33028  | .2771 27934   | .1065 08795  | .2634 94593  |
| .8517  | .9608 05311  | .2772 24018   | .1068 35160  | .2638 05251  |
| .8518  | .9607 77584  | .2773 20095   | .1071 61556  | .2641 15950  |
| .8519  | .9607 49847  | .2774 16171   | .1074 87984  | .2644 26683  |
| 1.8520 | 0.9607 22100 | -0.2775 12245 | 3.1078 14442 | 3.2647 37448 |
| .8521  | .9606 94344  | .2776 08315   | .1081 40931  | .2650 48246  |
| .8522  | .9606 66579  | .2777 04384   | .1084 67451  | .2653 59076  |
| .8523  | .9606 38803  | .2778 00449   | .1087 94003  | .2656 69939  |
| .8524  | .9606 11019  | .2778 96511   | .1091 20565  | .2659 80835  |
| 1.8525 | 0.9605 83224 | -0.2779 92571 | 3.1094 47199 | 3.2662 91723 |
| .8526  | .9605 55420  | .2780 88628   | .1097 73844  | .2666 02724  |
| .8527  | .9605 27606  | .2781 84682   | .1101 00520  | .2669 13718  |
| .8528  | .9604 99783  | .2782 80734   | .1104 27226  | .2672 24745  |
| .8529  | .9604 71950  | .2783 76782   | .1107 53965  | .2675 35804  |
| 1.8530 | 0.9604 44108 | -0.2784 72828 | 3.1110 80734 | 3.2678 46895 |
| .8531  | .9604 16256  | .2785 68871   | .1114 07534  | .2681 58020  |
| .8532  | .9603 88394  | .2786 64911   | .1117 34365  | .2684 69177  |
| .8533  | .9603 60523  | .2787 60949   | .1120 61228  | .2687 80387  |
| .8534  | .9603 32642  | .2788 56983   | .1123 88121  | .2690 91589  |
| 1.8535 | 0.9603 04751 | -0.2789 53015 | 3.1127 15046 | 3.2694 02844 |
| .8536  | .9602 76851  | .2790 49044   | .1130 42002  | .2697 14132  |
| .8537  | .9602 48941  | .2791 45071   | .1133 68989  | .2700 25453  |
| .8538  | .9602 21022  | .2792 41094   | .1136 96007  | .2703 36806  |
| .8539  | .9601 93093  | .2793 37115   | .1140 23056  | .2706 48192  |
| 1.8540 | 0.9601 65155 | -0.2794 33133 | 3.1143 50137 | 3.2709 59611 |
| .8541  | .9601 37207  | .2795 29148   | .1146 77248  | .2712 71062  |
| .8542  | .9601 09249  | .2796 25160   | .1150 04391  | .2715 82546  |
| .8543  | .9600 81282  | .2797 21170   | .1153 31565  | .2718 94063  |
| .8544  | .9600 53305  | .2798 17176   | .1156 58770  | .2722 05612  |
| 1.8545 | 0.9600 25318 | -0.2799 13180 | 3.1159 86006 | 3.2725 17195 |
| .8546  | .9599 97322  | .2800 09181   | .1163 13273  | .2728 28809  |
| .8547  | .9599 69316  | .2801 05180   | .1166 40572  | .2731 40457  |
| .8548  | .9599 41301  | .2802 01175   | .1169 67901  | .2734 52138  |
| .8549  | .9599 13276  | .2802 97168   | .1172 95262  | .2737 63851  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.8550 | 0.9598 85242 | -0.2803 93158 | 3.1176 22654 | 3.2740 75597 |
| .8551  | .9598 57197  | .2804 89145   | .1179 50077  | .2743 87375  |
| .8552  | .9598 29144  | .2805 85129   | .1182 77531  | .2746 99187  |
| .8553  | .9598 01080  | .2806 81111   | .1186 05017  | .2750 11031  |
| .8554  | .9597 73008  | .2807 77090   | .1189 32534  | .2753 22908  |
| 1.8555 | 0.9597 44925 | -0.2808 73065 | 3.1192 60082 | 3.2756 34817 |
| .8556  | .9597 16833  | .2809 69039   | .1195 87561  | .2759 46780  |
| .8557  | .9596 88731  | .2810 65009   | .1199 15271  | .2762 58735  |
| .8558  | .9596 60620  | .2811 60976   | .1202 42912  | .2765 70743  |
| .8559  | .9596 32499  | .2812 56941   | .1205 70585  | .2768 82783  |
| 1.8560 | 0.9596 04369 | -0.2813 52903 | 3.1208 98289 | 3.2771 94857 |
| .8561  | .9595 76228  | .2814 48862   | .1212 26024  | .2775 06963  |
| .8562  | .9595 48079  | .2815 44818   | .1215 53790  | .2778 19102  |
| .8563  | .9595 19919  | .2816 40771   | .1218 81588  | .2781 31274  |
| .8564  | .9594 91751  | .2817 36722   | .1222 09417  | .2784 43478  |
| 1.8565 | 0.9594 63572 | -0.2818 32670 | 3.1225 37277 | 3.2787 55716 |
| .8566  | .9594 35384  | .2819 28615   | .1228 65169  | .2790 67986  |
| .8567  | .9594 07186  | .2820 24557   | .1231 93090  | .2793 80289  |
| .8568  | .9593 78979  | .2821 20496   | .1235 21044  | .2796 92624  |
| .8569  | .9593 50762  | .2822 16435   | .1238 49029  | .2800 04993  |
| 1.8570 | 0.9593 22536 | -0.2823 12366 | 3.1241 77045 | 3.2803 17394 |
| .8571  | .9592 94300  | .2824 08297   | .1245 05092  | .2806 29828  |
| .8572  | .9592 66054  | .2825 04225   | .1248 33171  | .2809 42295  |
| .8573  | .9592 37799  | .2826 00150   | .1251 61281  | .2812 54795  |
| .8574  | .9592 09534  | .2826 96073   | .1254 89422  | .2815 67328  |
| 1.8575 | 0.9591 81260 | -0.2827 91992 | 3.1258 17594 | 3.2818 79893 |
| .8576  | .9591 52976  | .2828 87909   | .1261 45798  | .2821 92491  |
| .8577  | .9591 24682  | .2829 83823   | .1264 74033  | .2825 05122  |
| .8578  | .9590 96379  | .2830 79734   | .1268 02299  | .2828 17786  |
| .8579  | .9590 68066  | .2831 75642   | .1271 30596  | .2831 30483  |
| 1.8580 | 0.9590 39744 | -0.2832 71548 | 3.1274 58925 | 3.2834 43212 |
| .8581  | .9590 11412  | .2833 67450   | .1277 87285  | .2837 55974  |
| .8582  | .9589 83070  | .2834 63350   | .1281 15676  | .2840 68769  |
| .8583  | .9589 54719  | .2835 59247   | .1284 44099  | .2843 81597  |
| .8584  | .9589 26359  | .2836 55141   | .1287 72552  | .2846 94458  |
| 1.8585 | 0.9588 97988 | -0.2837 51032 | 3.1291 01037 | 3.2850 07352 |
| .8586  | .9588 69608  | .2838 46920   | .1294 29554  | .2853 20278  |
| .8587  | .9588 41219  | .2839 42806   | .1297 58101  | .2856 33238  |
| .8588  | .9588 12820  | .2840 38689   | .1300 86680  | .2859 46230  |
| .8589  | .9587 84411  | .2841 34569   | .1304 15291  | .2862 59255  |
| 1.8590 | 0.9587 55993 | -0.2842 30446 | 3.1307 43932 | 3.2865 72313 |
| .8591  | .9587 27565  | .2843 26320   | .1310 72605  | .2868 85404  |
| .8592  | .9586 99128  | .2844 22191   | .1314 01309  | .2871 98528  |
| .8593  | .9586 70681  | .2845 18060   | .1317 30045  | .2875 11684  |
| .8594  | .9586 42224  | .2846 13925   | .1320 58812  | .2878 24874  |
| 1.8595 | 0.9586 13758 | -0.2847 09788 | 3.1323 87610 | 3.2881 38096 |
| .8596  | .9585 85282  | .2848 05648   | .1327 16439  | .2884 51351  |
| .8597  | .9585 56797  | .2849 01505   | .1330 45300  | .2887 64639  |
| .8598  | .9585 28302  | .2849 97359   | .1333 74192  | .2890 77960  |
| .8599  | .9584 99797  | .2850 93211   | .1337 03116  | .2893 91314  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.8600 | 0.9584 71283 | -0.2851 89059 | 3.1340 32071 | 3.2387 04701 |
| .8601  | .9584 42759  | .2852 84905   | .1343 31087  | .2390 16121  |
| .8602  | .9584 14226  | .2853 80748   | .1343 30074  | .2393 31573  |
| .8603  | .9583 85683  | .2854 76533   | .1343 29123  | .2396 45065  |
| .8604  | .9583 57131  | .2855 72425   | .1343 48233  | .2399 53577  |
| 1.8605 | 0.9583 28569 | -0.2856 68259 | 3.1355 77313 | 3.2392 72123 |
| .8606  | .9582 99997  | .2857 64091   | .1340 03452  | .2395 85712  |
| .8607  | .9582 71416  | .2858 59913   | .1338 35332  | .2398 99330  |
| .8608  | .9582 42825  | .2859 55745   | .1338 64387  | .2392 12980  |
| .8609  | .9582 14225  | .2860 51566   | .1339 94074  | .2395 26632  |
| 1.8610 | 0.9581 85615 | -0.2861 47383 | 3.1373 23343 | 3.2383 40375 |
| .8611  | .9581 56995  | .2862 43205   | .1373 52643  | .2381 54127  |
| .8612  | .9581 28366  | .2863 39019   | .1373 81974  | .2384 67909  |
| .8613  | .9580 99727  | .2864 34851   | .1338 11336  | .2387 81724  |
| .8614  | .9580 71079  | .2865 30639   | .1338 40730  | .2390 95571  |
| 1.8615 | 0.9580 42421 | -0.2866 26445 | 3.1389 70155 | 3.2344 08452 |
| .8616  | .9580 13754  | .2867 22248   | .1382 99612  | .2347 23365  |
| .8617  | .9579 85077  | .2868 18043   | .1386 29100  | .2350 37312  |
| .8618  | .9579 56390  | .2869 13845   | .1389 58219  | .2353 51291  |
| .8619  | .9579 27694  | .2870 09639   | .1402 88170  | .2356 65303  |
| 1.8620 | 0.9578 98988 | -0.2871 05480 | 3.1406 17752 | 3.2359 79349 |
| .8621  | .9578 70273  | .2872 01219   | .1409 47363  | .2362 93487  |
| .8622  | .9578 41548  | .2872 97004   | .1412 77011  | .2366 07538  |
| .8623  | .9578 12814  | .2873 92787   | .1416 06683  | .2369 21682  |
| .8624  | .9577 84070  | .2874 88567   | .1419 36395  | .2372 35859  |
| 1.8625 | 0.9577 55316 | -0.2875 84344 | 3.1422 63135 | 3.2375 50070 |
| .8626  | .9577 26553  | .2876 80118   | .1423 92805  | .2378 64313  |
| .8627  | .9576 97780  | .2877 75889   | .1429 25705  | .2381 78589  |
| .8628  | .9576 68998  | .2876 71657   | .1432 55541  | .2384 92892  |
| .8629  | .9576 40206  | .2879 67423   | .1435 85408  | .2388 07240  |
| 1.8630 | 0.9576 11404 | -0.2880 63135 | 3.1439 15303 | 3.2381 21615 |
| .8631  | .9575 82593  | .2881 58945   | .1442 45230  | .2384 36023  |
| .8632  | .9575 53772  | .2882 54702   | .1445 75190  | .2387 50484  |
| .8633  | .9575 24942  | .2883 50450   | .1449 05131  | .2390 64938  |
| .8634  | .9574 96102  | .2884 46207   | .1452 35203  | .2393 79445  |
| 1.8635 | 0.9574 67253 | -0.2885 41955 | 3.1455 65256 | 3.3006 93935 |
| .8636  | .9574 38394  | .2886 37700   | .1459 95342  | .3010 08558  |
| .8637  | .9574 09525  | .2887 33443   | .1462 25458  | .3013 23164  |
| .8638  | .9573 80647  | .2888 29182   | .1465 55608  | .3016 37803  |
| .8639  | .9573 51759  | .2889 24919   | .1468 85786  | .3019 52475  |
| 1.8640 | 0.9573 22962 | -0.2890 20653 | 3.1472 15997 | 3.3022 67180 |
| .8641  | .9572 93955  | .2891 16383   | .1475 46239  | .3025 81918  |
| .8642  | .9572 65039  | .2892 12111   | .1478 76513  | .3029 96690  |
| .8643  | .9572 36113  | .2893 07836   | .1482 06819  | .3032 11494  |
| .8644  | .9572 07177  | .2894 03550   | .1485 37155  | .3035 26331  |
| 1.8645 | 0.9571 78232 | -0.2894 99278 | 3.1488 67524 | 3.3038 41201 |
| .8646  | .9571 49277  | .2895 94994   | .1491 97924  | .3041 56104  |
| .8647  | .9571 20313  | .2896 90708   | .1495 28355  | .3044 71041  |
| .8648  | .9570 91339  | .2897 86418   | .1498 58618  | .3047 86010  |
| .8649  | .9570 62356  | .2898 82126   | .1501 88312  | .3051 01012  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.8650 | 0.9570 33363 | -0.2899 77931 | 3.1505 19838 | 3.3054 16048 |
| .8651  | .9570 04360  | .2900 73533   | .1508 50395  | .3057 31116  |
| .8652  | .9569 75348  | .2901 69232   | .1511 80984  | .3060 46212  |
| .8653  | .9569 46326  | .2902 64928   | .1515 11605  | .3063 61353  |
| .8654  | .9569 17295  | .2903 60621   | .1518 42257  | .3066 76520  |
| 1.8655 | 0.9568 98254 | -0.2904 56311 | 3.1521 72940 | 3.3069 91721 |
| .8656  | .9568 59204  | .2905 51999   | .1525 03655  | .3073 06955  |
| .8657  | .9568 30144  | .2906 47683   | .1528 34401  | .3076 22222  |
| .8658  | .9568 01074  | .2907 43365   | .1531 65179  | .3079 37522  |
| .8659  | .9567 71995  | .2908 39043   | .1534 95989  | .3082 52855  |
| 1.8660 | 0.9567 42907 | -0.2909 34719 | 3.1538 26830 | 3.3085 68221 |
| .8661  | .9567 13808  | .2910 30392   | .1541 57703  | .3088 83620  |
| .8662  | .9566 84700  | .2911 26062   | .1544 88607  | .3091 99053  |
| .8663  | .9566 55583  | .2912 21729   | .1548 19542  | .3095 14518  |
| .8664  | .9566 26456  | .2913 17393   | .1551 50510  | .3098 30016  |
| 1.8665 | 0.9565 97320 | -0.2914 13054 | 3.1554 81508 | 3.3101 45548 |
| .8666  | .9565 68174  | .2915 08712   | .1558 12539  | .3104 61113  |
| .8667  | .9565 39018  | .2916 04368   | .1561 43601  | .3107 76711  |
| .8668  | .9565 09853  | .2917 00020   | .1564 74694  | .3110 92341  |
| .8669  | .9564 80678  | .2917 95670   | .1568 05819  | .3114 08006  |
| 1.8670 | 0.9564 51494 | -0.2918 91316 | 3.1571 36976 | 3.3117 23703 |
| .8671  | .9564 22300  | .2919 86960   | .1574 68164  | .3120 39433  |
| .8672  | .9563 93096  | .2920 82601   | .1577 99383  | .3123 55196  |
| .8673  | .9563 63883  | .2921 78239   | .1581 30635  | .3126 70993  |
| .8674  | .9563 34660  | .2922 73874   | .1584 61918  | .3129 86822  |
| 1.8675 | 0.9563 05428 | -0.2923 69506 | 3.1587 93232 | 3.3133 02685 |
| .8676  | .9562 76187  | .2924 65135   | .1591 24578  | .3136 18581  |
| .8677  | .9562 46935  | .2925 60761   | .1594 55956  | .3139 34510  |
| .8678  | .9562 17674  | .2926 56384   | .1597 87365  | .3142 50472  |
| .8679  | .9561 88404  | .2927 52004   | .1601 18806  | .3145 66468  |
| 1.8680 | 0.9561 59124 | -0.2928 47622 | 3.1604 50278 | 3.3148 82496 |
| .8681  | .9561 29834  | .2929 43236   | .1607 81782  | .3151 98558  |
| .8682  | .9561 00535  | .2930 38848   | .1611 13318  | .3155 14652  |
| .8683  | .9560 71227  | .2931 34456   | .1614 44885  | .3158 30780  |
| .8684  | .9560 41908  | .2932 30062   | .1617 76484  | .3161 46941  |
| 1.8685 | 0.9560 12581 | -0.2933 25665 | 3.1621 08115 | 3.3164 63136 |
| .8686  | .9559 83243  | .2934 21264   | .1624 39777  | .3167 79263  |
| .8687  | .9559 53896  | .2935 16861   | .1627 71471  | .3170 95624  |
| .8688  | .9559 24540  | .2936 12455   | .1631 03196  | .3174 11917  |
| .8689  | .9558 95174  | .2937 08046   | .1634 34953  | .3177 28244  |
| 1.8690 | 0.9558 65798 | -0.2938 03634 | 3.1637 66742 | 3.3180 44604 |
| .8691  | .9558 36413  | .2938 99219   | .1640 98562  | .3183 60998  |
| .8692  | .9558 07019  | .2939 94802   | .1644 30414  | .3186 77424  |
| .8693  | .9557 77614  | .2940 90381   | .1647 62297  | .3189 93884  |
| .8694  | .9557 48200  | .2941 85957   | .1650 94213  | .3193 10376  |
| 1.8695 | 0.9557 18777 | -0.2942 81530 | 3.1654 26160 | 3.3196 26902 |
| .8696  | .9556 89344  | .2943 77101   | .1657 58138  | .3199 43462  |
| .8697  | .9556 59902  | .2944 72668   | .1660 90148  | .3202 60054  |
| .8698  | .9556 30450  | .2945 68233   | .1664 22190  | .3205 76680  |
| .8699  | .9556 00988  | .2946 63794   | .1667 54264  | .3208 93339  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.8700 | 0.9555 71517 | -0.2847 59353 | 3.1870 86369 | 3.3212 10031 |
| .8701  | .9555 42036  | .2948 54909   | .1674 18506  | .3215 26756  |
| .8702  | .9555 12546  | .2949 50461   | .1677 50674  | .3218 43514  |
| .8703  | .9554 83046  | .2950 46011   | .1680 82874  | .3221 30306  |
| .8704  | .9554 53557  | .2951 41558   | .1684 15106  | .3224 77131  |
| 1.8705 | 0.9554 24018 | -0.2952 37102 | 3.1687 47370 | 3.3227 93989 |
| .8706  | .9553 94489  | .2953 32643   | .1690 79655  | .3231 10880  |
| .8707  | .9553 64951  | .2954 28181   | .1694 11992  | .3234 27805  |
| .8708  | .9553 35404  | .2955 23716   | .1697 44351  | .3237 44763  |
| .8709  | .9553 05843  | .2956 18246   | .1700 76741  | .3240 61754  |
| 1.8710 | 0.9552 76280 | -0.2957 14777 | 3.1704 09183 | 3.3243 78776 |
| .8711  | .9552 46704  | .2958 10303   | .1707 41617  | .3246 95836  |
| .8712  | .9552 17118  | .2959 05826   | .1710 74102  | .3250 12826  |
| .8713  | .9551 87522  | .2960 01347   | .1714 06619  | .3253 30050  |
| .8714  | .9551 57917  | .2960 96864   | .1717 39168  | .3256 47208  |
| 1.8715 | 0.9551 28303 | -0.2961 92378 | 3.1720 71749 | 3.3259 64398 |
| .8716  | .9550 98679  | .2962 87889   | .1724 04361  | .3262 81622  |
| .8717  | .9550 69045  | .2963 83396   | .1727 37005  | .3265 98879  |
| .8718  | .9550 39402  | .2964 78903   | .1730 69681  | .3269 16169  |
| .8719  | .9550 09750  | .2965 74403   | .1734 02388  | .3272 33493  |
| 1.8720 | 0.9549 80087 | -0.2966 69905 | 3.1737 35127 | 3.3275 50850 |
| .8721  | .9549 50416  | .2967 65402   | .1740 67898  | .3278 68240  |
| .8722  | .9549 20734  | .2968 60895   | .1744 00701  | .3281 85664  |
| .8723  | .9548 91043  | .2969 56386   | .1747 33535  | .3285 03120  |
| .8724  | .9548 61343  | .2970 51874   | .1750 66402  | .3288 20610  |
| 1.8725 | 0.9548 31633 | -0.2971 47358 | 3.1753 99300 | 3.3291 38134 |
| .8726  | .9548 01914  | .2972 42840   | .1757 32229  | .3294 55690  |
| .8727  | .9547 72185  | .2973 38319   | .1760 65191  | .3297 73280  |
| .8728  | .9547 42446  | .2974 33794   | .1763 98184  | .3300 90903  |
| .8729  | .9547 12698  | .2975 29267   | .1767 31209  | .3304 08560  |
| 1.8730 | 0.9546 82940 | -0.2976 24737 | 3.1770 64266 | 3.3307 26249 |
| .8731  | .9546 53173  | .2977 20204   | .1773 97354  | .3310 43972  |
| .8732  | .9546 23396  | .2978 15667   | .1777 30474  | .3313 61729  |
| .8733  | .9545 93610  | .2979 11128   | .1780 63627  | .3316 79519  |
| .8734  | .9545 63814  | .2980 06586   | .1783 96810  | .3319 97342  |
| 1.8735 | 0.9545 34008 | -0.2981 02041 | 3.1787 30026 | 3.3323 15198 |
| .8736  | .9545 04193  | .2981 97493   | .1790 63273  | .3326 33088  |
| .8737  | .9544 74369  | .2982 92942   | .1793 96553  | .3329 51011  |
| .8738  | .9544 44535  | .2983 88388   | .1797 29864  | .3332 68967  |
| .8739  | .9544 14691  | .2984 83831   | .1800 63206  | .3335 86957  |
| 1.8740 | 0.9543 84838 | -0.2985 79271 | 3.1803 96581 | 3.3339 04980 |
| .8741  | .9543 54975  | .2986 74708   | .1807 29987  | .3342 23036  |
| .8742  | .9543 25103  | .2987 70142   | .1810 63426  | .3345 41126  |
| .8743  | .9542 95221  | .2988 65573   | .1813 96896  | .3348 59249  |
| .8744  | .9542 65330  | .2989 61001   | .1817 30397  | .3351 77405  |
| 1.8745 | 0.9542 35429 | -0.2990 56426 | 3.1820 63931 | 3.3354 95595 |
| .8746  | .9542 05519  | .2991 51848   | .1823 97497  | .3358 13818  |
| .8747  | .9541 75599  | .2992 47267   | .1827 31094  | .3361 32074  |
| .8748  | .9541 45669  | .2993 42683   | .1830 64723  | .3364 50364  |
| .8749  | .9541 15730  | .2994 38096   | .1833 98384  | .3367 68687  |

| $x$    | $\sin x$     | $\cos x$      | $\sinh x$    | $\cosh x$    |
|--------|--------------|---------------|--------------|--------------|
| 1.8750 | 0.9540 85782 | -0.2995 33506 | 3.1837 32077 | 3.3370 87044 |
| .8751  | .9540 55823  | .2996 28913   | .1840 65801  | .3374 05433  |
| .8752  | .9540 25856  | .2997 24317   | .1843 99558  | .3377 23857  |
| .8753  | .9539 95879  | .2998 19718   | .1847 33346  | .3380 42315  |
| .8754  | .9539 65892  | .2999 15117   | .1850 67166  | .3383 60803  |
| 1.8755 | 0.9539 35896 | -0.3000 10512 | 3.1854 01018 | 3.3386 79327 |
| .8756  | .9539 05890  | .3001 05904   | .1857 34902  | .3389 97884  |
| .8757  | .9538 75874  | .3002 01293   | .1860 68818  | .3393 16474  |
| .8758  | .9538 45850  | .3002 96679   | .1864 02765  | .3396 35097  |
| .8759  | .9538 15815  | .3003 92062   | .1867 36745  | .3399 53754  |
| 1.8760 | 0.9537 85771 | -0.3004 87442 | 3.1870 70756 | 3.3402 72445 |
| .8761  | .9537 55718  | .3005 82819   | .1874 04799  | .3405 91189  |
| .8762  | .9537 25655  | .3006 78193   | .1877 38874  | .3409 09926  |
| .8763  | .9536 95582  | .3007 73564   | .1880 72981  | .3412 28716  |
| .8764  | .9536 65500  | .3008 68932   | .1884 07120  | .3415 47540  |
| 1.8765 | 0.9536 35408 | -0.3009 64297 | 3.1887 41291 | 3.3418 66398 |
| .8766  | .9536 05307  | .3010 59659   | .1890 75493  | .3421 85289  |
| .8767  | .9535 75196  | .3011 55018   | .1894 09728  | .3425 04213  |
| .8768  | .9535 45076  | .3012 50374   | .1897 43994  | .3428 23171  |
| .8769  | .9535 14946  | .3013 45727   | .1900 78293  | .3431 42182  |
| 1.8770 | 0.9534 84807 | -0.3014 41077 | 3.1904 12623 | 3.3434 61186 |
| .8771  | .9534 54658  | .3015 36424   | .1907 46985  | .3437 80244  |
| .8772  | .9534 24500  | .3016 31768   | .1910 81379  | .3440 99336  |
| .8773  | .9533 94332  | .3017 27109   | .1914 15805  | .3444 18460  |
| .8774  | .9533 64154  | .3018 22447   | .1917 50262  | .3447 37619  |
| 1.8775 | 0.9533 33967 | -0.3019 17782 | 3.1920 84752 | 3.3450 56810 |
| .8776  | .9533 03771  | .3020 13114   | .1924 19274  | .3453 76036  |
| .8777  | .9532 73564  | .3021 08443   | .1927 53827  | .3456 95294  |
| .8778  | .9532 43349  | .3022 03769   | .1930 88413  | .3460 14586  |
| .8779  | .9532 13124  | .3022 99092   | .1934 23030  | .3463 33912  |
| 1.8780 | 0.9531 82889 | -0.3023 94411 | 3.1937 57680 | 3.3466 53271 |
| .8781  | .9531 52645  | .3024 89728   | .1940 92361  | .3469 72664  |
| .8782  | .9531 22391  | .3025 85042   | .1944 27074  | .3472 92090  |
| .8783  | .9530 92128  | .3026 80353   | .1947 61819  | .3476 11549  |
| .8784  | .9530 61855  | .3027 75660   | .1950 96597  | .3479 31042  |
| 1.8785 | 0.9530 31573 | -0.3028 70965 | 3.1954 31406 | 3.3482 50568 |
| .8786  | .9530 01281  | .3029 66267   | .1957 66247  | .3485 70128  |
| .8787  | .9529 70979  | .3030 61565   | .1961 01120  | .3488 89722  |
| .8788  | .9529 40669  | .3031 56861   | .1964 36025  | .3492 09348  |
| .8789  | .9529 10348  | .3032 52153   | .1967 70962  | .3495 29009  |
| 1.8790 | 0.9528 80018 | -0.3033 47443 | 3.1971 05930 | 3.3498 48703 |
| .8791  | .9528 49679  | .3034 42729   | .1974 40931  | .3501 68430  |
| .8792  | .9528 19330  | .3035 38013   | .1977 75964  | .3504 88191  |
| .8793  | .9527 88971  | .3036 33293   | .1981 11029  | .3508 07985  |
| .8794  | .9527 58603  | .3037 28571   | .1984 46126  | .3511 27813  |
| 1.8795 | 0.9527 28225 | -0.3038 23845 | 3.1987 81254 | 3.3514 47674 |
| .8796  | .9526 97838  | .3039 19116   | .1991 16415  | .3517 67569  |
| .8797  | .9526 67441  | .3040 14385   | .1994 51608  | .3520 87498  |
| .8798  | .9526 37035  | .3041 09650   | .1997 86833  | .3524 07460  |
| .8799  | .9526 06620  | .3042 04912   | .2001 22089  | .3527 27455  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.8800 | 0.9525 76194 | -0.3043 00171 | 3.2004 57378 | 3.3530 47484 |
| .8801  | .9525 45759  | .3043 95427   | .2007 92699  | .3533 67546  |
| .8802  | .9525 15315  | .3044 90680   | .2011 28052  | .3536 87643  |
| .8803  | .9524 84861  | .3045 85930   | .2014 63436  | .3540 07772  |
| .8804  | .9524 54398  | .3046 81177   | .2017 98853  | .3543 27935  |
| 1.8805 | 0.9524 23925 | -0.3047 76421 | 3.2021 34302 | 3.3546 48132 |
| .8806  | .9523 93443  | .3048 71662   | .2024 69783  | .3549 68362  |
| .8807  | .9523 62951  | .3049 66900   | .2028 05296  | .3552 88626  |
| .8808  | .9523 32449  | .3050 62135   | .2031 40841  | .3556 08923  |
| .8809  | .9523 01938  | .3051 57366   | .2034 76418  | .3559 29254  |
| 1.8810 | 0.9522 71418 | -0.3052 52595 | 3.2038 12026 | 3.3562 49618 |
| .8811  | .9522 40888  | .3053 47821   | .2041 47667  | .3565 70016  |
| .8812  | .9522 10348  | .3054 43043   | .2044 83340  | .3568 90448  |
| .8813  | .9521 79799  | .3055 38263   | .2048 19046  | .3572 10913  |
| .8814  | .9521 49241  | .3056 33479   | .2051 54783  | .3575 31412  |
| 1.8815 | 0.9521 18673 | -0.3057 28692 | 3.2054 90552 | 3.3578 51944 |
| .8816  | .9520 88095  | .3058 23903   | .2058 26353  | .3581 72510  |
| .8817  | .9520 57508  | .3059 19110   | .2061 62186  | .3584 93109  |
| .8818  | .9520 26911  | .3060 14314   | .2064 98052  | .3588 13742  |
| .8819  | .9519 96305  | .3061 09515   | .2068 33949  | .3591 34409  |
| 1.8820 | 0.9519 65689 | -0.3062 04714 | 3.2071 69879 | 3.3594 55109 |
| .8821  | .9519 35064  | .3062 99909   | .2075 05840  | .3597 75843  |
| .8822  | .9519 04429  | .3063 95101   | .2078 41834  | .3600 96610  |
| .8823  | .9518 73785  | .3064 90290   | .2081 77859  | .3604 17411  |
| .8824  | .9518 43131  | .3065 85475   | .2085 13917  | .3607 38246  |
| 1.8825 | 0.9518 12468 | -0.3066 80658 | 3.2086 50007 | 3.3610 59114 |
| .8826  | .9517 81795  | .3067 75838   | .2091 86129  | .3613 80016  |
| .8827  | .9517 51113  | .3068 71014   | .2095 22283  | .3617 00851  |
| .8828  | .9517 20421  | .3069 66186   | .2098 58468  | .3620 21920  |
| .8829  | .9516 89719  | .3070 61359   | .2101 94687  | .3623 42923  |
| 1.8830 | 0.9516 59009 | -0.3071 56526 | 3.2105 30838 | 3.3626 63959 |
| .8831  | .9516 28288  | .3072 51690   | .2108 67220  | .3629 85029  |
| .8832  | .9515 97558  | .3073 46852   | .2112 03535  | .3633 06133  |
| .8833  | .9515 66819  | .3074 42010   | .2115 39882  | .3636 27270  |
| .8834  | .9515 36070  | .3075 37165   | .2118 76260  | .3639 48441  |
| 1.8835 | 0.9515 05311 | -0.3076 32317 | 3.2122 12671 | 3.3642 69645 |
| .8836  | .9514 74543  | .3077 27466   | .2125 49114  | .3645 90883  |
| .8837  | .9514 43766  | .3078 22612   | .2128 85580  | .3649 12155  |
| .8838  | .9514 12979  | .3079 17755   | .2132 22097  | .3652 33460  |
| .8839  | .9513 82182  | .3080 12895   | .2135 58636  | .3655 54799  |
| 1.8840 | 0.9513 51376 | -0.3081 08031 | 3.2139 95208 | 3.3658 76172 |
| .8841  | .9513 20561  | .3082 03165   | .2142 31811  | .3661 97578  |
| .8842  | .9512 89736  | .3082 98295   | .2145 68447  | .3665 19018  |
| .8843  | .9512 58901  | .3083 93423   | .2149 05115  | .3668 40492  |
| .8844  | .9512 28057  | .3084 88547   | .2152 41815  | .3671 61999  |
| 1.8845 | 0.9511 97203 | -0.3085 83662 | 3.2155 78548 | 3.3674 83540 |
| .8846  | .9511 66340  | .3086 78787   | .2159 15312  | .3678 05115  |
| .8847  | .9511 35468  | .3087 73902   | .2162 52109  | .3681 26724  |
| .8848  | .9511 04585  | .3088 69014   | .2165 88937  | .3684 48366  |
| .8849  | .9510 73694  | .3089 64123   | .2169 25798  | .3687 70041  |



| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.8850 | 0.9510 42793 | -0.3090 59228 | 3.2172 62691 | 3.3690 91751 |
| .8851  | .9510 11882  | .3091 54331   | .2175 99617  | .3694 13494  |
| .8852  | .9509 80962  | .3092 49431   | .2179 36574  | .3697 35271  |
| .8853  | .9509 50032  | .3093 44527   | .2182 73564  | .3700 57081  |
| .8854  | .9509 19093  | .3094 39621   | .2186 10585  | .3703 78925  |
| 1.8855 | 0.9508 88144 | -0.3095 34711 | 3.2189 47639 | 3.3707 00803 |
| .8856  | .9508 57186  | .3096 29798   | .2192 84726  | .3710 22715  |
| .8857  | .9508 26218  | .3097 24883   | .2196 21844  | .3713 44660  |
| .8858  | .9507 95241  | .3098 19964   | .2199 58995  | .3716 66639  |
| .8859  | .9507 64254  | .3099 15042   | .2202 96177  | .3719 88652  |
| 1.8860 | 0.9507 33258 | -0.3100 10117 | 3.2206 33392 | 3.3723 10698 |
| .8861  | .9507 02252  | .3101 05188   | .2209 70639  | .3726 32779  |
| .8862  | .9506 71237  | .3102 00257   | .2213 07919  | .3729 54893  |
| .8863  | .9506 40212  | .3102 95323   | .2216 45230  | .3732 77040  |
| .8864  | .9506 09178  | .3103 90385   | .2219 82574  | .3735 99222  |
| 1.8865 | 0.9505 78134 | -0.3104 85444 | 3.2223 19950 | 3.3739 21437 |
| .8866  | .9505 47081  | .3105 80501   | .2226 57358  | .3742 43686  |
| .8867  | .9505 16018  | .3106 75554   | .2229 94799  | .3745 65968  |
| .8868  | .9504 84946  | .3107 70604   | .2233 32272  | .3748 88285  |
| .8869  | .9504 53864  | .3108 65651   | .2236 69777  | .3752 10635  |
| 1.8870 | 0.9504 22772 | -0.3109 60695 | 3.2240 07314 | 3.3755 33019 |
| .8871  | .9503 91672  | .3110 55735   | .2243 44883  | .3758 55436  |
| .8872  | .9503 60561  | .3111 50773   | .2246 82485  | .3761 77888  |
| .8873  | .9503 29441  | .3112 45807   | .2250 20119  | .3765 00373  |
| .8874  | .9502 98312  | .3113 40839   | .2253 57785  | .3768 22892  |
| 1.8875 | 0.9502 67173 | -0.3114 35867 | 3.2256 95483 | 3.3771 45444 |
| .8876  | .9502 36025  | .3115 30892   | .2260 33214  | .3774 68031  |
| .8877  | .9502 04867  | .3116 25914   | .2263 70977  | .3777 90651  |
| .8878  | .9501 73700  | .3117 20933   | .2267 08772  | .3781 13305  |
| .8879  | .9501 42523  | .3118 15949   | .2270 46600  | .3784 35993  |
| 1.8880 | 0.9501 11337 | -0.3119 10962 | 3.2273 84459 | 3.3787 58714 |
| .8881  | .9500 80141  | .3120 05971   | .2277 22351  | .3790 81470  |
| .8882  | .9500 48935  | .3121 00978   | .2280 60276  | .3794 04259  |
| .8883  | .9500 17721  | .3121 95981   | .2283 98232  | .3797 27082  |
| .8884  | .9499 86496  | .3122 90981   | .2287 36221  | .3800 49938  |
| 1.8885 | 0.9499 55262 | -0.3123 85978 | 3.2290 74242 | 3.3803 72829 |
| .8886  | .9499 24019  | .3124 80972   | .2294 12296  | .3806 95753  |
| .8887  | .9498 92766  | .3125 75963   | .2297 50381  | .3810 18711  |
| .8888  | .9498 61504  | .3126 70951   | .2300 88499  | .3813 41703  |
| .8889  | .9498 30232  | .3127 65936   | .2304 26650  | .3816 64729  |
| 1.8890 | 0.9497 98951 | -0.3128 60917 | 3.2307 64832 | 3.3819 87789 |
| .8891  | .9497 67660  | .3129 55895   | .2311 03047  | .3823 10882  |
| .8892  | .9497 36359  | .3130 50871   | .2314 41295  | .3826 34009  |
| .8893  | .9497 05050  | .3131 45843   | .2317 79574  | .3829 57170  |
| .8894  | .9496 73730  | .3132 40812   | .2321 17886  | .3832 80365  |
| 1.8895 | 0.9496 42401 | -0.3133 35777 | 3.2324 56230 | 3.3836 03594 |
| .8896  | .9496 11063  | .3134 30740   | .2327 94607  | .3839 26856  |
| .8897  | .9495 79715  | .3135 25700   | .2331 33016  | .3842 50153  |
| .8898  | .9495 48358  | .3136 20656   | .2334 71457  | .3845 73483  |
| .8899  | .9495 16991  | .3137 15609   | .2338 09930  | .3848 96847  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.8900 | 0.9494 85615 | -0.3138 10569 | 3.2471 10416 | 3.3852 20245 |
| .8901  | .9494 54229  | .3139 05506   | .2472 33374  | .3855 43677  |
| .8902  | .9494 22834  | .3140 00450   | .2473 33375  | .3858 67142  |
| .8903  | .9493 91429  | .3140 95321   | .2474 33378  | .3861 90642  |
| .8904  | .9493 60015  | .3141 90319   | .2475 33384  | .3865 14175  |
| 1.8905 | 0.9493 28591 | -0.3142 85208 | 3.2475 33381 | 3.3868 37742 |
| .8906  | .9492 97158  | .3143 80194   | .2476 33381  | .3871 61343  |
| .8907  | .9492 65715  | .3144 75192   | .2477 33383  | .3874 84979  |
| .8908  | .9492 34263  | .3145 70147   | .2478 33386  | .3878 08647  |
| .8909  | .9492 02801  | .3146 65119   | .2479 33385  | .3881 32350  |
| 1.8910 | 0.9491 71330 | -0.3147 59989 | 3.2479 33384 | 3.3884 56087 |
| .8911  | .9491 39849  | .3148 54863   | .2479 33384  | .3887 79857  |
| .8912  | .9491 08359  | .3149 49716   | .2480 33385  | .3891 03661  |
| .8913  | .9490 76859  | .3150 44625   | .2481 33386  | .3894 27500  |
| .8914  | .9490 45350  | .3151 39531   | .2482 33386  | .3897 51372  |
| 1.8915 | 0.9490 13831 | -0.3152 34434 | 3.2482 33387 | 3.3900 75278 |
| .8916  | .9489 82303  | .3153 29374   | .2483 33387  | .3903 99218  |
| .8917  | .9489 50765  | .3154 24231   | .2484 33387  | .3907 23192  |
| .8918  | .9489 19218  | .3155 19104   | .2485 33388  | .3910 47199  |
| .8919  | .9488 87661  | .3156 14015   | .2486 33388  | .3913 71241  |
| 1.8920 | 0.9488 56095 | -0.3157 08902 | 3.2486 33388 | 3.3916 95317 |
| .8921  | .9488 24520  | .3158 03786   | .2487 33388  | .3920 19426  |
| .8922  | .9487 92934  | .3159 98637   | .2488 33389  | .3923 43569  |
| .8923  | .9487 61340  | .3159 93544   | .2489 33389  | .3926 67747  |
| .8924  | .9487 29736  | .3160 88419   | .2490 33389  | .3929 91953  |
| 1.8925 | 0.9486 98122 | -0.3161 83290 | 3.2489 33389 | 3.3933 16203 |
| .8926  | .9486 66499  | .3162 78153   | .2491 33389  | .3936 40432  |
| .8927  | .9486 34867  | .3163 73024   | .2492 33389  | .3939 64795  |
| .8928  | .9486 03224  | .3164 67825   | .2493 33389  | .3942 89142  |
| .8929  | .9485 71573  | .3165 62744   | .2494 33389  | .3946 13523  |
| 1.8930 | 0.9485 39912 | -0.3166 57600 | 3.2489 33389 | 3.3949 37938 |
| .8931  | .9485 08241  | .3167 52452   | .2495 33389  | .3952 62337  |
| .8932  | .9484 76561  | .3168 47301   | .2496 33389  | .3955 86370  |
| .8933  | .9484 44872  | .3169 42148   | .2497 33389  | .3959 10337  |
| .8934  | .9484 13173  | .3170 36990   | .2498 33389  | .3962 35937  |
| 1.8935 | 0.9483 81465 | -0.3171 31830 | 3.2490 33389 | 3.3965 60522 |
| .8936  | .9483 49747  | .3172 26667   | .2499 33389  | .3968 85141  |
| .8937  | .9483 18019  | .3173 21500   | .2499 33389  | .3972 09793  |
| .8938  | .9482 86282  | .3174 16330   | .2499 33389  | .3975 34430  |
| .8939  | .9482 54536  | .3175 11157   | .2500 33389  | .3978 59200  |
| 1.8940 | 0.9482 22780 | -0.3176 05981 | 3.2497 16226 | 3.3981 83955 |
| .8941  | .9481 91015  | .3177 00802   | .2500 33389  | .3985 08743  |
| .8942  | .9481 59240  | .3177 95619   | .2500 33389  | .3988 33566  |
| .8943  | .9481 27456  | .3178 90434   | .2500 33389  | .3991 58422  |
| .8944  | .9480 95662  | .3179 85245   | .2499 33389  | .3994 83313  |
| 1.8945 | 0.9480 63859 | -0.3180 80053 | 3.2494 14724 | 3.3998 08237 |
| .8946  | .9480 32046  | .3181 74853   | .2497 54721  | .4001 33196  |
| .8947  | .9480 00224  | .3182 69659   | .2500 33389  | .4004 58189  |
| .8948  | .9479 68392  | .3183 64459   | .2500 33389  | .4007 83215  |
| .8949  | .9479 36551  | .3184 59253   | .2500 33389  | .4011 08275  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.8950 | 0.9479 04700 | -0.3185 54045 | 3.2511 15035 | 3.4014 33370 |
| .8951  | .9478 72340  | .3186 48834   | .2514 55194  | .4017 58498  |
| .8952  | .9478 40970  | .3187 43620   | .2517 95386  | .4020 83661  |
| .8953  | .9478 09091  | .3188 38402   | .2521 35611  | .4024 09857  |
| .8954  | .9477 77203  | .3189 33181   | .2524 75868  | .4027 34088  |
| 1.8955 | 0.9477 45305 | -0.3190 27958 | 3.2528 16158 | 3.4030 59353 |
| .8956  | .9477 13397  | .3191 22730   | .2531 56480  | .4033 84651  |
| .8957  | .9476 81480  | .3192 17500   | .2534 96835  | .4037 09984  |
| .8958  | .9476 49554  | .3193 12267   | .2539 37222  | .4040 35351  |
| .8959  | .9476 17618  | .3194 07030   | .2541 77642  | .4043 60751  |
| 1.8960 | 0.9475 85672 | -0.3195 01790 | 3.2545 18094 | 3.4046 86186 |
| .8961  | .9475 53717  | .3195 96547   | .2548 58579  | .4050 11655  |
| .8962  | .9475 21753  | .3196 91301   | .2551 99097  | .4053 37158  |
| .8963  | .9474 89779  | .3197 86052   | .2555 39647  | .4056 62695  |
| .8964  | .9474 57796  | .3198 80799   | .2558 80229  | .4059 88266  |
| 1.8965 | 0.9474 25803 | -0.3199 75543 | 3.2562 20844 | 3.4063 13871 |
| .8966  | .9473 93800  | .3200 70284   | .2565 61492  | .4066 39510  |
| .8967  | .9473 61789  | .3201 65022   | .2569 02172  | .4069 65183  |
| .8968  | .9473 29767  | .3202 59757   | .2572 42885  | .4072 90890  |
| .8969  | .9472 97737  | .3203 54488   | .2575 83630  | .4076 16632  |
| 1.8970 | 0.9472 65697 | -0.3204 49216 | 3.2579 24408 | 3.4079 42407 |
| .8971  | .9472 33647  | .3205 43941   | .2582 65219  | .4082 68217  |
| .8972  | .9472 01588  | .3206 38663   | .2586 06062  | .4085 94060  |
| .8973  | .9471 69519  | .3207 33381   | .2589 46938  | .4089 19938  |
| .8974  | .9471 37441  | .3208 28097   | .2592 87846  | .4092 45850  |
| 1.8975 | 0.9471 05354 | -0.3209 22809 | 3.2596 28787 | 3.4095 71795 |
| .8976  | .9470 73257  | .3210 17518   | .2599 69760  | .4098 97775  |
| .8977  | .9470 41150  | .3211 12223   | .2603 10766  | .4102 23789  |
| .8978  | .9470 09034  | .3212 06926   | .2606 51805  | .4105 49837  |
| .8979  | .9469 76909  | .3213 01625   | .2609 92876  | .4108 75920  |
| 1.8980 | 0.9469 44774 | -0.3213 96321 | 3.2613 33980 | 3.4112 02036 |
| .8981  | .9469 12629  | .3214 91014   | .2616 75117  | .4115 28186  |
| .8982  | .9468 80476  | .3215 85704   | .2620 16286  | .4118 54371  |
| .8983  | .9468 48312  | .3216 80390   | .2623 57488  | .4121 80590  |
| .8984  | .9468 16140  | .3217 75074   | .2626 98722  | .4125 06843  |
| 1.8985 | 0.9467 83957 | -0.3218 69754 | 3.2630 39989 | 3.4128 33129 |
| .8986  | .9467 51766  | .3219 64430   | .2633 81289  | .4131 59451  |
| .8987  | .9467 19564  | .3220 59104   | .2637 22621  | .4134 85806  |
| .8988  | .9466 87354  | .3221 53774   | .2640 63986  | .4138 12195  |
| .8989  | .9466 55134  | .3222 48441   | .2644 05383  | .4141 38619  |
| 1.8990 | 0.9466 22904 | -0.3223 43105 | 3.2647 46814 | 3.4144 65076 |
| .8991  | .9465 90665  | .3224 37766   | .2650 88276  | .4147 91568  |
| .8992  | .9465 58416  | .3225 32423   | .2654 29772  | .4151 18094  |
| .8993  | .9465 26159  | .3226 27078   | .2657 71300  | .4154 44654  |
| .8994  | .9464 93891  | .3227 21729   | .2661 12861  | .4157 71248  |
| 1.8995 | 0.9464 61614 | -0.3228 16376 | 3.2664 54454 | 3.4160 97876 |
| .8996  | .9464 29328  | .3229 11021   | .2667 96080  | .4164 24539  |
| .8997  | .9463 97032  | .3230 05662   | .2671 37739  | .4167 51236  |
| .8998  | .9463 64727  | .3231 00300   | .2674 79431  | .4170 77967  |
| .8999  | .9463 32412  | .3231 94935   | .2678 21155  | .4174 04732  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.9000 | 0.9463 00088 | -0.3232 89567 | 3.2661 62912 | 3.4177 31531 |
| .9001  | .9462 67754  | .3233 84195   | .2685 04701  | .4180 53364  |
| .9002  | .9462 35411  | .3234 78820   | .2688 46523  | .4183 55232  |
| .9003  | .9462 03058  | .3235 73442   | .2691 88373  | .4187 12135  |
| .9004  | .9461 70696  | .3236 68061   | .2695 30266  | .4190 39069  |
| 1.9005 | 0.9461 38325 | -0.3237 62676 | 3.2698 72186 | 3.4193 66039 |
| .9006  | .9461 05944  | .3238 57289   | .2702 14139  | .4196 93044  |
| .9007  | .9460 73553  | .3239 51893   | .2705 56124  | .4200 20082  |
| .9008  | .9460 41153  | .3240 46503   | .2708 98143  | .4203 47155  |
| .9009  | .9460 08744  | .3241 41106   | .2712 40134  | .4206 74262  |
| 1.9010 | 0.9459 76325 | -0.3242 35705 | 3.2715 82278 | 3.4210 01403 |
| .9011  | .9459 43897  | .3243 30301   | .2719 24394  | .4213 28578  |
| .9012  | .9459 11459  | .3244 24894   | .2722 66543  | .4216 55758  |
| .9013  | .9458 79012  | .3245 19483   | .2726 08725  | .4219 83032  |
| .9014  | .9458 46555  | .3246 14070   | .2729 50940  | .4223 10310  |
| 1.9015 | 0.9458 14089 | -0.3247 08653 | 3.2732 93187 | 3.4226 37622 |
| .9016  | .9457 81613  | .3248 03233   | .2736 35468  | .4229 64968  |
| .9017  | .9457 49128  | .3248 97809   | .2739 77780  | .4232 92349  |
| .9018  | .9457 16634  | .3249 92382   | .2743 20126  | .4236 19764  |
| .9019  | .9456 84130  | .3250 86952   | .2746 62504  | .4239 47213  |
| 1.9020 | 0.9456 51616 | -0.3251 81519 | 3.2750 04915 | 3.4242 74696 |
| .9021  | .9456 19094  | .3252 76083   | .2753 47359  | .4246 02214  |
| .9022  | .9455 86561  | .3253 70643   | .2756 89836  | .4249 29766  |
| .9023  | .9455 54019  | .3254 65200   | .2760 32345  | .4252 57352  |
| .9024  | .9455 21468  | .3255 59754   | .2763 74887  | .4255 84972  |
| 1.9025 | 0.9454 88907 | -0.3256 54304 | 3.2767 17462 | 3.4259 12627 |
| .9026  | .9454 56337  | .3257 48852   | .2770 60070  | .4262 40316  |
| .9027  | .9454 23758  | .3258 43396   | .2774 02710  | .4265 68039  |
| .9028  | .9453 91169  | .3259 37936   | .2777 45384  | .4268 95796  |
| .9029  | .9453 58570  | .3260 32474   | .2780 88089  | .4272 23588  |
| 1.9030 | 0.9453 25962 | -0.3261 27008 | 3.2784 30828 | 3.4275 51414 |
| .9031  | .9452 93345  | .3262 21539   | .2787 73600  | .4278 79274  |
| .9032  | .9452 60718  | .3263 16067   | .2791 16404  | .4282 07169  |
| .9033  | .9452 28081  | .3264 10591   | .2794 59241  | .4285 35097  |
| .9034  | .9451 95436  | .3265 05112   | .2798 02111  | .4288 63061  |
| 1.9035 | 0.9451 62780 | -0.3265 99630 | 3.2801 45014 | 3.4291 91058 |
| .9036  | .9451 30116  | .3266 94145   | .2804 87949  | .4295 19090  |
| .9037  | .9450 97442  | .3267 88656   | .2808 30918  | .4298 47156  |
| .9038  | .9450 64758  | .3268 83164   | .2811 73919  | .4301 75256  |
| .9039  | .9450 32065  | .3269 77669   | .2815 16953  | .4305 03390  |
| 1.9040 | 0.9449 99362 | -0.3270 72171 | 3.2818 60019 | 3.4308 31559 |
| .9041  | .9449 66651  | .3271 66669   | .2822 03119  | .4311 59762  |
| .9042  | .9449 33929  | .3272 61164   | .2825 46251  | .4314 88000  |
| .9043  | .9449 01198  | .3273 55656   | .2828 89417  | .4318 16272  |
| .9044  | .9448 68458  | .3274 50144   | .2832 32615  | .4321 44578  |
| 1.9045 | 0.9448 35708 | -0.3275 44630 | 3.2835 75846 | 3.4324 72918 |
| .9046  | .9448 02949  | .3276 39112   | .2839 19109  | .4328 01293  |
| .9047  | .9447 70180  | .3277 33590   | .2842 62406  | .4331 29702  |
| .9048  | .9447 37402  | .3278 28066   | .2846 05735  | .4334 58145  |
| .9049  | .9447 04615  | .3279 22538   | .2849 49097  | .4337 86623  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.9050 | 0.9446 71818 | -0.3280 17006 | 3.2852 92493 | 3.4341 15135 |
| .9051  | .9446 39011  | .3281 11472   | .2856 35920  | .4344 43682  |
| .9052  | .9446 06196  | .3282 05934   | .2859 79381  | .4347 72262  |
| .9053  | .9445 73370  | .3283 00393   | .2863 22875  | .4351 00877  |
| .9054  | .9445 40535  | .3283 94849   | .2866 66401  | .4354 29527  |
| 1.9055 | 0.9445 07691 | -0.3284 89301 | 3.2870 09961 | 3.4357 58211 |
| .9056  | .9444 74838  | .3285 83750   | .2873 53553  | .4360 86929  |
| .9057  | .9444 41975  | .3286 78196   | .2876 97178  | .4364 15681  |
| .9058  | .9444 09102  | .3287 72639   | .2880 40836  | .4367 44468  |
| .9059  | .9443 76220  | .3288 67078   | .2883 84527  | .4370 73290  |
| 1.9060 | 0.9443 43329 | -0.3289 61514 | 3.2887 28251 | 3.4374 02145 |
| .9061  | .9443 10428  | .3290 55947   | .2890 72008  | .4377 31035  |
| .9062  | .9442 77517  | .3291 50376   | .2894 15797  | .4380 59960  |
| .9063  | .9442 44598  | .3292 44802   | .2897 59620  | .4383 88918  |
| .9064  | .9442 11668  | .3293 39225   | .2901 03475  | .4387 17912  |
| 1.9065 | 0.9441 78730 | -0.3294 33645 | 3.2904 47363 | 3.4390 46939 |
| .9066  | .9441 45782  | .3295 28061   | .2907 91284  | .4393 76001  |
| .9067  | .9441 12824  | .3296 22474   | .2911 35238  | .4397 05097  |
| .9068  | .9440 79857  | .3297 16883   | .2914 79225  | .4400 34228  |
| .9069  | .9440 46881  | .3298 11290   | .2918 23245  | .4403 63393  |
| 1.9070 | 0.9440 13895 | -0.3299 05693 | 3.2921 67298 | 3.4406 92593 |
| .9071  | .9439 80900  | .3300 00093   | .2925 11384  | .4410 21827  |
| .9072  | .9439 47895  | .3300 94489   | .2928 55502  | .4413 51095  |
| .9073  | .9439 14881  | .3301 88882   | .2931 99654  | .4416 80398  |
| .9074  | .9438 81857  | .3302 83272   | .2935 43838  | .4420 09735  |
| 1.9075 | 0.9438 48824 | -0.3303 77659 | 3.2938 88056 | 3.4423 39107 |
| .9076  | .9438 15782  | .3304 72042   | .2942 32306  | .4426 68513  |
| .9077  | .9437 82730  | .3305 66422   | .2945 76590  | .4429 97953  |
| .9078  | .9437 49668  | .3306 60798   | .2949 20906  | .4433 27428  |
| .9079  | .9437 16598  | .3307 55172   | .2952 65255  | .4436 56937  |
| 1.9080 | 0.9436 83517 | -0.3308 49542 | 3.2956 09637 | 3.4439 86481 |
| .9081  | .9436 50428  | .3309 43908   | .2959 54052  | .4443 16059  |
| .9082  | .9436 17329  | .3310 38272   | .2962 98500  | .4446 45672  |
| .9083  | .9435 84220  | .3311 32632   | .2966 42981  | .4449 75319  |
| .9084  | .9435 51102  | .3312 26989   | .2969 87495  | .4453 05000  |
| 1.9085 | 0.9435 17975 | -0.3313 21342 | 3.2973 32042 | 3.4456 34716 |
| .9086  | .9434 84838  | .3314 15692   | .2976 76622  | .4459 64467  |
| .9087  | .9434 51691  | .3315 10039   | .2980 21235  | .4462 94252  |
| .9088  | .9434 18536  | .3316 04382   | .2983 65881  | .4466 24071  |
| .9089  | .9433 85371  | .3316 98723   | .2987 10560  | .4469 53925  |
| 1.9090 | 0.9433 52196 | -0.3317 93060 | 3.2990 55272 | 3.4472 83813 |
| .9091  | .9433 19012  | .3318 87393   | .2994 00017  | .4476 13736  |
| .9092  | .9432 85818  | .3319 81723   | .2997 44795  | .4479 43693  |
| .9093  | .9432 52616  | .3320 76050   | .3000 89606  | .4482 73685  |
| .9094  | .9432 19403  | .3321 70374   | .3004 34450  | .4486 03711  |
| 1.9095 | 0.9431 86182 | -0.3322 64694 | 3.3007 79326 | 3.4489 33772 |
| .9096  | .9431 52950  | .3323 59011   | .3011 24236  | .4492 63867  |
| .9097  | .9431 19710  | .3324 53325   | .3014 69179  | .4495 93997  |
| .9098  | .9430 86460  | .3325 47635   | .3018 14155  | .4499 24161  |
| .9099  | .9430 53200  | .3326 41942   | .3021 59164  | .4502 54359  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.9100 | 0.9430 19931 | -0.3327 36246 | 3.3025 04206 | 3.4505 84533 |
| .9101  | .9429 36653  | .3328 30546   | .3028 49231  | .4509 14820  |
| .9102  | .9429 53365  | .3329 24843   | .3031 94339  | .4512 45132  |
| .9103  | .9429 20068  | .3330 19137   | .3035 39550  | .4515 75439  |
| .9104  | .9428 86761  | .3331 15427   | .3038 84704  | .4519 05870  |
| 1.9105 | 0.9428 53445 | -0.3332 07714 | 3.3042 29911 | 3.4522 38276 |
| .9106  | .9428 20120  | .3333 01998   | .3045 75151  | .4525 68718  |
| .9107  | .9427 86785  | .3333 96278   | .3049 20424  | .4528 97191  |
| .9108  | .9427 53441  | .3334 90555   | .3052 65731  | .4532 27700  |
| .9109  | .9427 20087  | .3335 84829   | .3056 11070  | .4535 58244  |
| 1.9110 | 0.9426 86724 | -0.3336 79099 | 3.3059 56442 | 3.4538 88623 |
| .9111  | .9426 53351  | .3337 73366   | .3063 01848  | .4542 19436  |
| .9112  | .9426 19969  | .3338 67630   | .3066 47286  | .4545 50083  |
| .9113  | .9425 86577  | .3339 61890   | .3069 92758  | .4548 80765  |
| .9114  | .9425 53177  | .3340 56147   | .3073 38282  | .4552 11482  |
| 1.9115 | 0.9425 19766 | -0.3341 50401 | 3.3076 83800 | 3.4555 42233 |
| .9116  | .9424 86346  | .3342 44651   | .3080 29371  | .4558 73018  |
| .9117  | .9424 52917  | .3343 38898   | .3083 74975  | .4562 03839  |
| .9118  | .9424 19479  | .3344 33142   | .3087 20612  | .4565 34693  |
| .9119  | .9423 86031  | .3345 27332   | .3090 66282  | .4568 65588  |
| 1.9120 | 0.9423 52573 | -0.3346 21619 | 3.3094 11985 | 3.4571 96507 |
| .9121  | .9423 19106  | .3347 15852   | .3097 57721  | .4575 27465  |
| .9122  | .9422 86630  | .3348 10083   | .3101 03490  | .4578 58458  |
| .9123  | .9422 52144  | .3349 04310   | .3104 49293  | .4581 89466  |
| .9124  | .9422 18649  | .3349 98533   | .3107 95128  | .4585 20548  |
| 1.9125 | 0.9421 85145 | -0.3350 92753 | 3.3111 40997 | 3.4588 51645 |
| .9126  | .9421 51631  | .3351 86970   | .3114 86898  | .4591 82776  |
| .9127  | .9421 18107  | .3352 81184   | .3118 32833  | .4595 13942  |
| .9128  | .9420 84574  | .3353 75394   | .3121 78801  | .4598 45143  |
| .9129  | .9420 51032  | .3354 69600   | .3125 24802  | .4601 76378  |
| 1.9130 | 0.9420 17430 | -0.3355 63804 | 3.3128 70837 | 3.4605 07648 |
| .9131  | .9419 83919  | .3356 58004   | .3132 16904  | .4608 38952  |
| .9132  | .9419 50349  | .3357 52201   | .3135 63004  | .4611 70291  |
| .9133  | .9419 16769  | .3358 46394   | .3139 09138  | .4615 01665  |
| .9134  | .9418 83180  | .3359 40584   | .3142 55305  | .4618 33073  |
| 1.9135 | 0.9418 49581 | -0.3360 34771 | 3.3146 01505 | 3.4621 64516 |
| .9136  | .9418 15973  | .3361 28954   | .3149 47738  | .4624 95993  |
| .9137  | .9417 82355  | .3362 23134   | .3152 94004  | .4628 27505  |
| .9138  | .9417 48728  | .3363 17310   | .3156 40303  | .4631 59052  |
| .9139  | .9417 15092  | .3364 11484   | .3159 86636  | .4634 90633  |
| 1.9140 | 0.9416 81446 | -0.3365 05653 | 3.3163 33001 | 3.4638 22249 |
| .9141  | .9416 47790  | .3365 99820   | .3166 79400  | .4641 53900  |
| .9142  | .9416 14126  | .3366 93983   | .3170 25832  | .4644 85585  |
| .9143  | .9415 80452  | .3367 88143   | .3173 72297  | .4648 17305  |
| .9144  | .9415 46768  | .3368 82299   | .3177 18795  | .4651 49060  |
| 1.9145 | 0.9415 13075 | -0.3369 76452 | 3.3180 65327 | 3.4654 80849 |
| .9146  | .9414 79373  | .3370 70602   | .3184 11892  | .4658 12673  |
| .9147  | .9414 45661  | .3371 64748   | .3187 58489  | .4661 44531  |
| .9148  | .9414 11940  | .3372 58891   | .3191 05121  | .4664 76424  |
| .9149  | .9413 78209  | .3373 53030   | .3194 51785  | .4668 08352  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.9150 | 0.9413 44469 | -0.3374 47166 | 3.3197 98482 | 3.4671 40315 |
| .9151  | .9413 10720  | .3375 41299   | .3201 45213  | .4674 72312  |
| .9152  | .9412 76961  | .3376 35429   | .3204 91977  | .4678 04344  |
| .9153  | .9412 43193  | .3377 29555   | .3208 38774  | .4681 36410  |
| .9154  | .9412 09415  | .3378 23677   | .3211 85604  | .4684 68512  |
| 1.9155 | 0.9411 75628 | -0.3379 17797 | 3.3215 32467 | 3.4688 00647 |
| .9156  | .9411 41832  | .3380 11912   | .3218 79364  | .4691 32818  |
| .9157  | .9411 08026  | .3381 06025   | .3222 26294  | .4694 65023  |
| .9158  | .9410 74210  | .3382 00134   | .3225 73257  | .4697 97263  |
| .9159  | .9410 40386  | .3382 94240   | .3229 20253  | .4701 29538  |
| 1.9160 | 0.9410 06551 | -0.3383 88342 | 3.3232 67283 | 3.4704 61847 |
| .9161  | .9409 72708  | .3384 82441   | .3236 14346  | .4707 94191  |
| .9162  | .9409 38855  | .3385 76537   | .3239 61442  | .4711 26570  |
| .9163  | .9409 04993  | .3386 70629   | .3243 08571  | .4714 58984  |
| .9164  | .9408 71121  | .3387 64718   | .3246 55734  | .4717 91452  |
| 1.9165 | 0.9408 37240 | -0.3388 58803 | 3.3250 02929 | 3.4721 23915 |
| .9166  | .9408 03349  | .3389 52885   | .3253 50158  | .4724 56433  |
| .9167  | .9407 69449  | .3390 46964   | .3256 97421  | .4727 88985  |
| .9168  | .9407 35540  | .3391 41039   | .3260 44716  | .4731 21572  |
| .9169  | .9407 01621  | .3392 35111   | .3263 92045  | .4734 54194  |
| 1.9170 | 0.9406 67693 | -0.3393 29179 | 3.3267 39407 | 3.4737 86850 |
| .9171  | .9406 33755  | .3394 23244   | .3270 86802  | .4741 19542  |
| .9172  | .9405 99808  | .3395 17306   | .3274 34231  | .4744 52268  |
| .9173  | .9405 65852  | .3396 11364   | .3277 81693  | .4747 85029  |
| .9174  | .9405 31886  | .3397 05419   | .3281 29188  | .4751 17824  |
| 1.9175 | 0.9404 97911 | -0.3397 99471 | 3.3284 76716 | 3.4754 50654 |
| .9176  | .9404 63926  | .3398 93519   | .3288 24278  | .4757 83520  |
| .9177  | .9404 29932  | .3399 87563   | .3291 71873  | .4761 16419  |
| .9178  | .9403 95928  | .3400 81605   | .3295 19501  | .4764 49354  |
| .9179  | .9403 61916  | .3401 75643   | .3298 67163  | .4767 82323  |
| 1.9180 | 0.9403 27893 | -0.3402 69677 | 3.3302 14858 | 3.4771 15327 |
| .9181  | .9402 93862  | .3403 63708   | .3305 62586  | .4774 48366  |
| .9182  | .9402 59820  | .3404 57736   | .3309 10348  | .4777 81440  |
| .9183  | .9402 25770  | .3405 51760   | .3312 58142  | .4781 14548  |
| .9184  | .9401 91710  | .3406 45781   | .3316 05970  | .4784 47691  |
| 1.9185 | 0.9401 57641 | -0.3407 39799 | 3.3319 53832 | 3.4787 80869 |
| .9186  | .9401 23562  | .3408 33813   | .3323 01727  | .4791 14082  |
| .9187  | .9400 89474  | .3409 27823   | .3326 49655  | .4794 47330  |
| .9188  | .9400 55377  | .3410 21831   | .3329 97616  | .4797 80612  |
| .9189  | .9400 21270  | .3411 15834   | .3333 45611  | .4801 13929  |
| .9190  | 0.9399 87153 | -0.3412 09835 | 3.3336 93639 | 3.4804 47281 |
| .9191  | .9399 53028  | .3413 03832   | .3340 41700  | .4807 80668  |
| .9192  | .9399 18893  | .3413 97825   | .3343 89795  | .4811 14090  |
| .9193  | .9398 84748  | .3414 91816   | .3347 37923  | .4814 47546  |
| .9194  | .9398 50594  | .3415 85802   | .3350 86085  | .4817 81037  |
| .9195  | 0.9398 16431 | -0.3416 79786 | 3.3354 34279 | 3.4821 14563 |
| .9196  | .9397 82258  | .3417 73766   | .3357 82507  | .4824 48124  |
| .9197  | .9397 48076  | .3418 67742   | .3361 30769  | .4827 81720  |
| .9198  | .9397 13885  | .3419 61715   | .3364 79064  | .4831 15350  |
| .9199  | .9396 79684  | .3420 55685   | .3368 27392  | .4834 49016  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.9200 | 0.9396 45474 | -0.3421 49651 | 3.3371 75754 | 3.4337 32716 |
| .9201  | .9396 11254  | .3422 43614   | .3375 24149  | .4841 16451  |
| .9202  | .9395 77025  | .3423 37573   | .3373 72577  | .4844 50221  |
| .9203  | .9395 42737  | .3424 31529   | .3382 21039  | .4847 84025  |
| .9204  | .9395 08539  | .3425 25482   | .3385 69534  | .4851 17865  |
| 1.9205 | 0.9394 74281 | -0.3426 19431 | 3.3389 18062 | 3.4254 51739 |
| .9206  | .9394 40015  | .3427 13377   | .3392 66624  | .4857 85648  |
| .9207  | .9394 05739  | .3428 07319   | .3396 15219  | .4861 19592  |
| .9208  | .9393 71453  | .3429 01258   | .3399 63948  | .4864 53571  |
| .9209  | .9393 37158  | .3429 95193   | .3403 12510  | .4867 87535  |
| 1.9210 | 0.9393 02854 | -0.3430 89125 | 3.3406 61205 | 3.4871 21634 |
| .9211  | .9392 68541  | .3431 83054   | .3410 09354  | .4874 55717  |
| .9212  | .9392 34213  | .3432 76979   | .3413 58697  | .4877 89836  |
| .9213  | .9391 99865  | .3433 70901   | .3417 07492  | .4881 23939  |
| .9214  | .9391 65543  | .3434 64819   | .3420 56321  | .4884 58177  |
| 1.9215 | 0.9391 31192 | -0.3435 58734 | 3.3424 05184 | 3.4887 92400 |
| .9216  | .9390 96832  | .3436 52645   | .3427 54080  | .4891 26553  |
| .9217  | .9390 62462  | .3437 46553   | .3431 03009  | .4894 60951  |
| .9218  | .9390 28032  | .3438 40458   | .3434 51972  | .4897 95279  |
| .9219  | .9389 93694  | .3439 34359   | .3438 00968  | .4901 29842  |
| 1.9220 | 0.9389 59296 | -0.3440 28257 | 3.3441 49996 | 3.4904 84039 |
| .9221  | .9389 24885  | .3441 22151   | .3444 99061  | .4907 93472  |
| .9222  | .9388 90471  | .3442 16042   | .3448 48168  | .4911 32839  |
| .9223  | .9388 56045  | .3443 09929   | .3451 97286  | .4914 67441  |
| .9224  | .9388 21609  | .3444 03813   | .3455 46451  | .4918 01979  |
| 1.9225 | 0.9387 87164 | -0.3444 97693 | 3.3458 95648 | 3.4921 36551 |
| .9226  | .9387 52710  | .3445 91579   | .3462 44379  | .4924 71158  |
| .9227  | .9387 18246  | .3446 85444   | .3465 94142  | .4928 05600  |
| .9228  | .9386 83773  | .3447 79314   | .3469 43440  | .4931 40175  |
| .9229  | .9386 49290  | .3448 73180   | .3472 92770  | .4934 75163  |
| 1.9230 | 0.9386 14796 | -0.3449 67044 | 3.3476 42135 | 3.4938 09365 |
| .9231  | .9385 80296  | .3450 60903   | .3479 91532  | .4941 44717  |
| .9232  | .9385 45786  | .3451 54760   | .3483 40964  | .4944 79533  |
| .9233  | .9385 11266  | .3452 48613   | .3486 90428  | .4948 14385  |
| .9234  | .9384 76736  | .3453 42462   | .3490 39927  | .4951 49271  |
| 1.9235 | 0.9384 42197 | -0.3454 36308 | 3.3493 89458 | 3.4954 84193 |
| .9236  | .9384 07649  | .3455 30160   | .3497 39023  | .4958 19149  |
| .9237  | .9383 73091  | .3456 23989   | .3500 88622  | .4961 54141  |
| .9238  | .9383 38524  | .3457 17825   | .3504 38254  | .4964 89167  |
| .9239  | .9383 03947  | .3458 11657   | .3507 87920  | .4968 24228  |
| 1.9240 | 0.9382 69382 | -0.3459 05486 | 3.3511 37619 | 3.4971 59325 |
| .9241  | .9382 34766  | .3459 99311   | .3514 37352  | .4974 94456  |
| .9242  | .9382 00162  | .3460 93133   | .3518 37118  | .4978 29622  |
| .9243  | .9381 65548  | .3461 86951   | .3521 86913  | .4981 64823  |
| .9244  | .9381 30924  | .3462 80766   | .3525 36751  | .4985 00059  |
| 1.9245 | 0.9380 96292 | -0.3463 74577 | 3.3528 86618 | 3.4988 35331 |
| .9246  | .9380 61649  | .3464 68385   | .3532 36516  | .4991 70837  |
| .9247  | .9380 26998  | .3465 62190   | .3535 86452  | .4995 05978  |
| .9248  | .9379 92337  | .3466 55991   | .3539 36419  | .4999 41354  |
| .9249  | .9379 57667  | .3467 49788   | .3542 86420  | .5001 76765  |



| $x$    | $\sin x$     | $\cos x$      | $\sinh x$    | $\cosh x$    |
|--------|--------------|---------------|--------------|--------------|
| 1.9250 | 0.9379 22957 | -0.3438 43582 | 3.3546 36455 | 3.5005 18211 |
| .9251  | .9378 86298  | .3439 37371   | .3549 86523  | .5008 47695  |
| .9252  | .9378 53600  | .3470 51160   | .3553 36624  | .5011 23209  |
| .9253  | .9378 18892  | .3471 24943   | .3556 86759  | .5015 18760  |
| .9254  | .9377 84175  | .3472 18724   | .3560 36928  | .5018 54346  |
| 1.9255 | 0.9377 49448 | -0.3473 12500 | 3.3563 87130 | 3.5021 89967 |
| .9256  | .9377 14712  | .3474 06273   | .3567 37366  | .5025 25623  |
| .9257  | .9376 79967  | .3475 00043   | .3570 87635  | .5028 61315  |
| .9258  | .9376 45212  | .3475 93809   | .3574 37939  | .5031 97041  |
| .9259  | .9376 10448  | .3476 87572   | .3577 88275  | .5035 32802  |
| 1.9260 | 0.9375 75675 | -0.3477 81331 | 3.3581 36645 | 3.5038 68599 |
| .9261  | .9375 40892  | .3478 75087   | .3584 89048  | .5042 04430  |
| .9262  | .9375 06100  | .3479 68840   | .3588 39486  | .5045 40296  |
| .9263  | .9374 71298  | .3480 92589   | .3591 89956  | .5048 76198  |
| .9264  | .9374 36487  | .3481 56334   | .3595 40461  | .5052 12134  |
| 1.9265 | 0.9374 01667 | -0.3482 50076 | 3.3598 90999 | 3.5055 48106 |
| .9266  | .9375 66857  | .3483 43814   | .3602 41570  | .5058 84113  |
| .9267  | .9373 31998  | .3484 37549   | .3605 92176  | .5062 20154  |
| .9268  | .9372 97149  | .3485 31281   | .3609 42814  | .5065 56231  |
| .9269  | .9372 62292  | .3486 25009   | .3612 93427  | .5068 92343  |
| 1.9270 | 0.9372 27424 | -0.3487 18733 | 3.3616 44193 | 3.5072 28430 |
| .9271  | .9371 92548  | .3488 12454   | .3619 94933  | .5075 64672  |
| .9272  | .9371 57662  | .3489 06172   | .3623 45706  | .5079 00899  |
| .9273  | .9371 22767  | .3489 99886   | .3626 96513  | .5082 37141  |
| .9274  | .9370 87852  | .3490 93596   | .3630 47353  | .5085 73422  |
| 1.9275 | 0.9370 52948 | -0.3491 87303 | 3.3633 98227 | 3.5089 09750 |
| .9275  | .9370 18025  | .3492 81007   | .3637 49135  | .5092 46108  |
| .9277  | .9369 83092  | .3493 74707   | .3641 00077  | .5095 82500  |
| .9276  | .9369 48150  | .3494 68403   | .3644 51052  | .5099 18928  |
| .9279  | .9369 13198  | .3495 62096   | .3648 02060  | .5102 55390  |
| 1.9280 | 0.9368 78237 | -0.3496 55786 | 3.3651 53103 | 3.5105 91888 |
| .9281  | .9368 43267  | .3497 49472   | .3655 04179  | .5109 28421  |
| .9282  | .9368 08287  | .3498 43155   | .3658 55288  | .5112 64989  |
| .9283  | .9367 73298  | .3499 36834   | .3662 06432  | .5116 01592  |
| .9284  | .9367 38300  | .3500 30509   | .3665 57609  | .5119 38230  |
| 1.9285 | 0.9367 03292 | -0.3501 24181 | 3.3669 08819 | 3.5122 74904 |
| .9286  | .9366 68275  | .3502 17850   | .3672 60064  | .5126 11612  |
| .9287  | .9366 33249  | .3503 11515   | .3676 11342  | .5129 48356  |
| .9288  | .9365 98213  | .3504 05177   | .3679 62653  | .5132 85134  |
| .9289  | .9365 63168  | .3504 98835   | .3683 13999  | .5136 21948  |
| 1.9290 | 0.9365 28113 | -0.3505 92489 | 3.3686 65378 | 3.5139 58797 |
| .9291  | .9364 93049  | .3506 86140   | .3690 16791  | .5142 95681  |
| .9292  | .9364 57976  | .3507 79788   | .3693 68237  | .5146 32600  |
| .9293  | .9364 22893  | .3508 73432   | .3697 19717  | .5149 69555  |
| .9294  | .9363 87801  | .3509 67072   | .3700 71231  | .5153 06544  |
| 1.9295 | 0.9363 52700 | -0.3510 60709 | 3.3704 22778 | 3.5156 43569 |
| .9296  | .9363 17589  | .3511 54343   | .3707 74360  | .5159 80629  |
| .9297  | .9362 82469  | .3512 47973   | .3711 25975  | .5163 17724  |
| .9298  | .9362 47359  | .3513 41600   | .3714 77623  | .5166 54854  |
| .9299  | .9362 12201  | .3514 35222   | .3718 29305  | .5169 92020  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.9300 | 0.9361 77052 | -0.3515 28842 | 3.3721 81022 | 3.5173 28220 |
| .9301  | .9361 41895  | .3516 22458   | .3725 32771  | .5178 33456  |
| .9302  | .9361 06728  | .3517 16070   | .3728 84554  | .5180 33727  |
| .9303  | .9360 71552  | .3518 09379   | .3732 33372  | .5183 41033  |
| .9304  | .9360 36366  | .3519 03285   | .3735 82223  | .5186 78374  |
| 1.9305 | 0.9360 01171 | -0.3519 93887 | 3.3739 40108 | 3.5190 15750 |
| .9306  | .9359 65967  | .3520 90485   | .3742 92026  | .5193 55162  |
| .9307  | .9359 30753  | .3521 84080   | .3746 43378  | .5196 30309  |
| .9308  | .9358 95530  | .3522 77671   | .3749 95684  | .5200 25091  |
| .9309  | .9358 60297  | .3523 71259   | .3753 47384  | .5203 55606  |
| 1.9310 | 0.9358 25055 | -0.3524 64843 | 3.3757 00037 | 3.5207 03160 |
| .9311  | .9357 89804  | .3525 58424   | .3760 52125  | .5210 40748  |
| .9312  | .9357 54544  | .3526 52001   | .3764 04245  | .5213 78371  |
| .9313  | .9357 19274  | .3527 45575   | .3767 56400  | .5217 18029  |
| .9314  | .9356 83995  | .3528 39145   | .3771 08589  | .5220 53722  |
| 1.9315 | 0.9356 48706 | -0.3529 32712 | 3.3774 60811 | 3.5223 91450 |
| .9316  | .9356 13408  | .3530 26275   | .3778 13087  | .5227 29214  |
| .9317  | .9355 78101  | .3531 19834   | .3781 65357  | .5230 87013  |
| .9318  | .9355 42784  | .3532 13390   | .3785 17860  | .5234 04847  |
| .9319  | .9355 07458  | .3533 06943   | .3788 70088  | .5237 42717  |
| 1.9320 | 0.9354 72123 | -0.3534 00492 | 3.3792 22429 | 3.5240 80621 |
| .9321  | .9354 36778  | .3534 94037   | .3795 74584  | .5244 18561  |
| .9322  | .9354 01424  | .3535 87579   | .3799 27313  | .5247 56536  |
| .9323  | .9353 66061  | .3536 81117   | .3802 79805  | .5250 94547  |
| .9324  | .9353 30688  | .3537 74652   | .3806 32332  | .5254 32592  |
| 1.9325 | 0.9352 95306 | -0.3538 68184 | 3.3809 84592 | 3.5257 70673 |
| .9326  | .9352 59914  | .3539 61711   | .3813 37486  | .5261 08789  |
| .9327  | .9352 24513  | .3540 55236   | .3816 90114  | .5264 46941  |
| .9328  | .9351 89103  | .3541 48756   | .3820 42775  | .5267 85127  |
| .9329  | .9351 53683  | .3542 42273   | .3823 95471  | .5271 23342  |
| 1.9330 | 0.9351 18255 | -0.3543 35787 | 3.3827 48200 | 3.5274 61806 |
| .9331  | .9350 82816  | .3544 29297   | .3831 00983  | .5277 99899  |
| .9332  | .9350 47369  | .3545 22804   | .3834 53760  | .5281 38226  |
| .9333  | .9350 11912  | .3546 16307   | .3838 06591  | .5284 76589  |
| .9334  | .9349 76445  | .3547 09806   | .3841 59455  | .5288 14956  |
| 1.9335 | 0.9349 40970 | -0.3548 03302 | 3.3845 12354 | 3.5291 53421 |
| .9336  | .9349 05485  | .3548 96794   | .3848 65286  | .5294 91890  |
| .9337  | .9348 69990  | .3549 90283   | .3852 18252  | .5298 30354  |
| .9338  | .9348 34487  | .3550 83783   | .3855 71252  | .5301 68934  |
| .9339  | .9347 98974  | .3551 77250   | .3859 24285  | .5305 07509  |
| 1.9340 | 0.9347 63451 | -0.3552 70728 | 3.3862 77353 | 3.5308 46119 |
| .9341  | .9347 27920  | .3553 64203   | .3866 30455  | .5311 84764  |
| .9342  | .9346 92378  | .3554 57674   | .3869 83590  | .5315 23445  |
| .9343  | .9346 56828  | .3555 51141   | .3873 36760  | .5318 62161  |
| .9344  | .9346 21268  | .3556 44605   | .3876 89963  | .5322 00912  |
| 1.9345 | 0.9345 85699 | -0.3557 38065 | 3.3880 43200 | 3.5325 39699 |
| .9346  | .9345 50121  | .3558 31522   | .3883 96471  | .5328 78521  |
| .9347  | .9345 14533  | .3559 24975   | .3887 49796  | .5332 17378  |
| .9348  | .9344 78938  | .3560 18425   | .3891 03114  | .5335 56271  |
| .9349  | .9344 43329  | .3561 11871   | .3894 56427  | .5338 95199  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.9350 | 0.9344 07713 | -0.3562 05314 | 3.3898 09893 | 3.5342 34162 |
| .9351  | .9343 72088  | .3562 98753   | .3901 63334  | .5345 73161  |
| .9352  | .9343 36453  | .3563 92188   | .3905 16808  | .5349 12195  |
| .9353  | .9343 00810  | .3564 85620   | .3908 70316  | .5352 51264  |
| .9354  | .9342 65156  | .3565 79048   | .3912 23858  | .5355 90369  |
| 1.9355 | 0.9342 29494 | -0.3566 72473 | 3.3915 77434 | 3.5359 29509 |
| .9356  | .9341 93822  | .3567 65894   | .3919 31044  | .5362 68684  |
| .9357  | .9341 58141  | .3568 59312   | .3922 84688  | .5366 07895  |
| .9358  | .9341 22450  | .3569 52726   | .3926 38366  | .5369 47141  |
| .9359  | .9340 86750  | .3570 46136   | .3929 92077  | .5372 86423  |
| 1.9360 | 0.9340 51041 | -0.3571 39543 | 3.3933 45823 | 3.5376 25740 |
| .9361  | .9340 15322  | .3572 32946   | .3936 99602  | .5379 65092  |
| .9362  | .9339 79594  | .3573 26346   | .3940 53416  | .5383 04480  |
| .9363  | .9339 43857  | .3574 19742   | .3944 07263  | .5386 43903  |
| .9364  | .9339 08110  | .3575 13135   | .3947 61145  | .5389 83361  |
| 1.9365 | 0.9338 72354 | -0.3576 06524 | 3.3951 15060 | 3.5393 22855 |
| .9366  | .9338 36589  | .3576 99909   | .3954 69009  | .5396 62384  |
| .9367  | .9338 00814  | .3577 93291   | .3958 22993  | .5400 01949  |
| .9368  | .9337 65030  | .3578 86670   | .3961 77010  | .5403 41549  |
| .9369  | .9337 29237  | .3579 80044   | .3965 31061  | .5406 81184  |
| 1.9370 | 0.9336 93434 | -0.3580 73415 | 3.3968 85146 | 3.5410 20855 |
| .9371  | .9336 57622  | .3581 66783   | .3972 39265  | .5413 60561  |
| .9372  | .9336 21801  | .3582 60147   | .3975 93418  | .5417 00303  |
| .9373  | .9335 85970  | .3583 53507   | .3979 47605  | .5420 40080  |
| .9374  | .9335 50130  | .3584 46864   | .3983 01826  | .5423 79892  |
| 1.9375 | 0.9335 14281 | -0.3585 40217 | 3.3986 56081 | 3.5427 19740 |
| .9376  | .9334 78422  | .3586 33567   | .3990 10370  | .5430 59623  |
| .9377  | .9334 42554  | .3587 26913   | .3993 64693  | .5433 99542  |
| .9378  | .9334 06677  | .3588 20255   | .3997 19050  | .5437 39496  |
| .9379  | .9333 70790  | .3589 13594   | .4000 73441  | .5440 79486  |
| 1.9380 | 0.9333 34894 | -0.3590 06930 | 3.4004 27866 | 3.5444 19511 |
| .9381  | .9332 98989  | .3591 00261   | .4007 82325  | .5447 59572  |
| .9382  | .9332 63074  | .3591 93589   | .4011 36818  | .5450 99668  |
| .9383  | .9332 27150  | .3592 86914   | .4014 91345  | .5454 39799  |
| .9384  | .9331 91217  | .3593 80235   | .4018 45906  | .5457 79966  |
| 1.9385 | 0.9331 55274 | -0.3594 73552 | 3.4022 00501 | 3.5461 20168 |
| .9386  | .9331 19322  | .3595 66866   | .4025 55130  | .5464 60406  |
| .9387  | .9330 83361  | .3596 60176   | .4029 09793  | .5468 00679  |
| .9388  | .9330 47390  | .3597 53483   | .4032 64490  | .5471 40988  |
| .9389  | .9330 11410  | .3598 46786   | .4036 19221  | .5474 81332  |
| 1.9390 | 0.9329 75421 | -0.3599 40085 | 3.4039 73986 | 3.5478 21712 |
| .9391  | .9329 39422  | .3600 33381   | .4043 28785  | .5481 62127  |
| .9392  | .9329 03414  | .3601 26673   | .4046 83619  | .5485 02577  |
| .9393  | .9328 67397  | .3602 19961   | .4050 38486  | .5488 43064  |
| .9394  | .9328 31370  | .3603 13246   | .4053 93387  | .5491 83585  |
| 1.9395 | 0.9327 95334 | -0.3604 06528 | 3.4057 48323 | 3.5495 24142 |
| .9396  | .9327 59289  | .3604 99805   | .4061 03292  | .5498 64735  |
| .9397  | .9327 23234  | .3605 93079   | .4064 58296  | .5502 05363  |
| .9398  | .9326 87170  | .3606 86350   | .4068 13333  | .5505 46027  |
| .9399  | .9326 51097  | .3607 79617   | .4071 68405  | .5508 86726  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.9400 | 0.9326 15014 | -0.3608 72880 | 3.4075 23510 | 3.5512 27430 |
| .9401  | .9325 78922  | .3609 66140   | .4078 78650  | .5515 31230  |
| .9402  | .9325 42821  | .3610 59396   | .4082 33824  | .5517 35032  |
| .9403  | .9325 06710  | .3611 52648   | .4085 89032  | .5522 38877  |
| .9404  | .9324 70590  | .3612 45897   | .4088 44274  | .5525 32754  |
| 1.9405 | 0.9324 34461 | -0.3613 39143 | 3.4092 99550 | 3.5529 31686 |
| .9406  | .9323 98322  | .3614 32384   | .4096 54860  | .5532 72614  |
| .9407  | .9323 62175  | .3615 25622   | .4100 10205  | .5535 13597  |
| .9408  | .9323 26017  | .3616 18857   | .4103 65583  | .5539 54618  |
| .9409  | .9322 89851  | .3617 12087   | .4107 20996  | .5542 95670  |
| 1.9410 | 0.9322 53675 | -0.3618 05315 | 3.4110 76442 | 3.5546 32720 |
| .9411  | .9322 17490  | .3618 98538   | .4114 31923  | .5549 77865  |
| .9412  | .9321 81295  | .3619 91758   | .4117 87438  | .5553 18046  |
| .9413  | .9321 45091  | .3620 84974   | .4121 42987  | .5556 60243  |
| .9414  | .9321 08878  | .3621 78187   | .4124 98570  | .5560 01475  |
| 1.9415 | 0.9320 72656 | -0.3622 71396 | 3.4128 54167 | 3.5563 42743 |
| .9416  | .9320 36424  | .3623 64602   | .4132 09838  | .5566 84046  |
| .9417  | .9320 00183  | .3624 57803   | .4135 65524  | .5570 25364  |
| .9418  | .9319 63932  | .3625 51002   | .4139 21243  | .5573 66759  |
| .9419  | .9319 27673  | .3626 44196   | .4142 76997  | .5577 08139  |
| 1.9420 | 0.9318 91404 | -0.3627 37387 | 3.4146 32786 | 3.5580 48214 |
| .9421  | .9318 55125  | .3628 30575   | .4149 88607  | .5583 89195  |
| .9422  | .9318 18837  | .3629 23758   | .4153 44463  | .5587 32212  |
| .9423  | .9317 82540  | .3630 16938   | .4157 00354  | .5590 74164  |
| .9424  | .9317 46234  | .3631 10115   | .4160 56278  | .5594 15752  |
| 1.9425 | 0.9317 09918 | -0.3632 03268 | 3.4164 12237 | 3.5587 57375 |
| .9426  | .9316 73593  | .3632 96457   | .4167 68230  | .5590 99034  |
| .9427  | .9316 37259  | .3633 89622   | .4171 24257  | .5594 40729  |
| .9428  | .9316 00915  | .3634 82784   | .4174 80318  | .5597 82459  |
| .9429  | .9315 64562  | .3635 75942   | .4178 36413  | .5601 24225  |
| 1.9430 | 0.9315 28200 | -0.3636 69097 | 3.4181 92543 | 3.5614 86027 |
| .9431  | .9314 91829  | .3637 62248   | .4185 48706  | .5618 07864  |
| .9432  | .9314 55448  | .3638 55395   | .4189 04904  | .5621 49736  |
| .9433  | .9314 19058  | .3639 48539   | .4192 61136  | .5624 91645  |
| .9434  | .9313 82658  | .3640 41679   | .4196 17403  | .5628 33589  |
| 1.9435 | 0.9313 46249 | -0.3641 34816 | 3.4199 73703 | 3.5631 75568 |
| .9436  | .9313 09831  | .3642 27948   | .4203 30038  | .5635 17583  |
| .9437  | .9312 73404  | .3643 21078   | .4206 86407  | .5638 59634  |
| .9438  | .9312 36967  | .3644 14203   | .4210 42810  | .5642 01721  |
| .9439  | .9312 00521  | .3645 07325   | .4213 99247  | .5645 43843  |
| 1.9440 | 0.9311 64065 | -0.3646 00443 | 3.4217 55718 | 3.5648 86000 |
| .9441  | .9311 27601  | .3646 93558   | .4221 12224  | .5652 28194  |
| .9442  | .9310 91127  | .3647 86669   | .4224 68764  | .5655 70423  |
| .9443  | .9310 54643  | .3648 79776   | .4228 25338  | .5659 12688  |
| .9444  | .9310 18151  | .3649 72880   | .4231 81947  | .5662 54988  |
| 1.9445 | 0.9309 81649 | -0.3650 65980 | 3.4235 38589 | 3.5665 97324 |
| .9446  | .9309 45138  | .3651 59076   | .4238 95266  | .5669 39696  |
| .9447  | .9309 08617  | .3652 52169   | .4242 51977  | .5672 82103  |
| .9448  | .9308 72037  | .3653 45258   | .4246 08722  | .5676 24546  |
| .9449  | .9308 35548  | .3654 38344   | .4249 65502  | .5679 67025  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.9450 | 0.9307 98999 | -0.3655 31425 | 3.4253 22316 | 3.5683 09539 |
| .9451  | .9307 62442  | .3656 24503   | .4256 79164  | .5686 52089  |
| .9452  | .9307 25875  | .3657 17577   | .4260 36046  | .5689 94675  |
| .9453  | .9306 89298  | .3658 10648   | .4263 92963  | .5693 37296  |
| .9454  | .9306 52712  | .3659 03715   | .4267 49914  | .5696 79954  |
| 1.9455 | 0.9306 16117 | -0.3659 96779 | 3.4271 06899 | 3.5700 22646 |
| .9456  | .9305 79513  | .3660 89838   | .4274 63918  | .5703 65375  |
| .9457  | .9305 42899  | .3661 82895   | .4278 20972  | .5707 08139  |
| .9458  | .9305 06277  | .3662 75947   | .4281 78060  | .5710 50939  |
| .9459  | .9304 69644  | .3663 68996   | .4285 35182  | .5713 93775  |
| 1.9460 | 0.9304 33003 | -0.3664 62041 | 3.4288 92339 | 3.5717 36646 |
| .9461  | .9303 96352  | .3665 55082   | .4292 49529  | .5720 79553  |
| .9462  | .9303 59692  | .3666 48120   | .4296 06755  | .5724 22496  |
| .9463  | .9303 23022  | .3667 41154   | .4299 64014  | .5727 65475  |
| .9464  | .9302 86343  | .3668 34185   | .4303 21308  | .5731 08489  |
| 1.9465 | 0.9302 49655 | -0.3669 27212 | 3.4306 78636 | 3.5734 51539 |
| .9466  | .9302 12958  | .3670 20235   | .4310 35998  | .5737 94625  |
| .9467  | .9301 76251  | .3671 13254   | .4313 93395  | .5741 37746  |
| .9468  | .9301 39535  | .3672 06270   | .4317 50826  | .5744 80903  |
| .9469  | .9301 02810  | .3672 99282   | .4321 08291  | .5748 24096  |
| 1.9470 | 0.9300 66076 | -0.3673 92291 | 3.4324 65790 | 3.5751 67325 |
| .9471  | .9300 29332  | .3674 85295   | .4328 23324  | .5755 10589  |
| .9472  | .9299 92578  | .3675 78296   | .4331 80892  | .5758 53890  |
| .9473  | .9299 55816  | .3676 71294   | .4335 38495  | .5761 97226  |
| .9474  | .9299 19044  | .3677 64288   | .4338 96132  | .5765 40597  |
| 1.9475 | 0.9298 82263 | -0.3678 57278 | 3.4342 53803 | 3.5768 84005 |
| .9476  | .9298 45473  | .3679 50264   | .4346 11509  | .5772 27448  |
| .9477  | .9298 08673  | .3680 43247   | .4349 69249  | .5775 70927  |
| .9478  | .9297 71864  | .3681 36226   | .4353 27023  | .5779 14442  |
| .9479  | .9297 35046  | .3682 29201   | .4356 84832  | .5782 57993  |
| 1.9480 | 0.9296 98218 | -0.3683 22173 | 3.4360 42674 | 3.5786 01579 |
| .9481  | .9296 61381  | .3684 15141   | .4364 00552  | .5789 45201  |
| .9482  | .9296 24535  | .3685 08105   | .4367 58464  | .5792 88859  |
| .9483  | .9295 87680  | .3686 01066   | .4371 16410  | .5796 32553  |
| .9484  | .9295 50815  | .3686 94023   | .4374 74390  | .5799 76282  |
| 1.9485 | 0.9295 13941 | -0.3687 86976 | 3.4378 32405 | 3.5803 20048 |
| .9486  | .9294 77058  | .3688 79925   | .4381 90454  | .5806 63849  |
| .9487  | .9294 40165  | .3689 72871   | .4385 48538  | .5810 07686  |
| .9488  | .9294 03263  | .3690 65813   | .4389 06656  | .5813 51559  |
| .9489  | .9293 66352  | .3691 58752   | .4392 64808  | .5816 95467  |
| 1.9490 | 0.9293 29431 | -0.3692 51687 | 3.4396 22995 | 3.5820 39411 |
| .9491  | .9292 92501  | .3693 44618   | .4399 81216  | .5823 83392  |
| .9492  | .9292 55562  | .3694 37545   | .4403 39471  | .5827 27408  |
| .9493  | .9292 18614  | .3695 30469   | .4406 97761  | .5830 71460  |
| .9494  | .9291 81656  | .3696 23389   | .4410 56086  | .5834 15547  |
| 1.9495 | 0.9291 44689 | -0.3697 16305 | 3.4414 14444 | 3.5837 59671 |
| .9496  | .9291 07713  | .3698 09218   | .4417 72838  | .5841 03830  |
| .9497  | .9290 70727  | .3699 02127   | .4421 31265  | .5844 48025  |
| .9498  | .9290 33735  | .3699 95032   | .4424 89727  | .5847 92256  |
| .9499  | .9289 96728  | .3700 87934   | .4428 48224  | .5851 36523  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.9500 | 0.9289 59715 | -0.3701 80831 | 3.4432 06754 | 3.5854 80826 |
| .9501  | .9289 22692  | .3702 73725   | .4435 65320  | .5856 25165  |
| .9502  | .9288 85660  | .3703 66616   | .4439 23920  | .5861 69539  |
| .9503  | .9288 48619  | .3704 59503   | .4442 82554  | .5865 13949  |
| .9504  | .9288 11568  | .3705 52386   | .4446 41222  | .5868 59396  |
| 1.9505 | 0.9287 74508 | -0.3706 45265 | 3.4449 99925 | 3.5872 02878 |
| .9506  | .9287 37439  | .3707 38141   | .4453 58663  | .5875 47396  |
| .9507  | .9287 00361  | .3708 31012   | .4457 17435  | .5878 91949  |
| .9508  | .9286 63273  | .3709 23881   | .4460 76241  | .5882 36539  |
| .9509  | .9286 26176  | .3710 16745   | .4464 35082  | .5885 81165  |
| 1.9510 | 0.9285 89070 | -0.3711 09606 | 3.4467 93958 | 3.5889 25826 |
| .9511  | .9285 51954  | .3712 02463   | .4471 52867  | .5892 70523  |
| .9512  | .9285 14829  | .3712 95316   | .4475 11812  | .5895 15257  |
| .9513  | .9284 77695  | .3713 88166   | .4478 70790  | .5898 60026  |
| .9514  | .9284 40552  | .3714 81012   | .4482 29804  | .5903 04831  |
| 1.9515 | 0.9284 03399 | -0.3715 73854 | 3.4485 88851 | 3.5906 49672 |
| .9516  | .9283 66237  | .3716 66692   | .4489 47934  | .5909 94549  |
| .9517  | .9283 29066  | .3717 59527   | .4493 07050  | .5913 39461  |
| .9518  | .9282 91885  | .3718 52358   | .4496 66201  | .5916 84410  |
| .9519  | .9282 54695  | .3719 45186   | .4500 25387  | .5920 29395  |
| 1.9520 | 0.9282 17496 | -0.3720 38009 | 3.4503 84607 | 3.5923 74415 |
| .9521  | .9281 80287  | .3721 30829   | .4507 43862  | .5927 19472  |
| .9522  | .9281 43070  | .3722 23645   | .4511 03151  | .5930 64564  |
| .9523  | .9281 05843  | .3723 16458   | .4514 62475  | .5934 09692  |
| .9524  | .9280 68606  | .3724 09266   | .4518 21833  | .5937 54856  |
| 1.9525 | 0.9280 31361 | -0.3725 02071 | 3.4521 81926 | 3.5941 00057 |
| .9526  | .9279 94106  | .3725 94873   | .4525 40653  | .5944 45293  |
| .9527  | .9279 56842  | .3726 87670   | .4529 00115  | .5947 90565  |
| .9528  | .9279 19569  | .3727 80464   | .4532 59611  | .5951 35873  |
| .9529  | .9278 82286  | .3728 73254   | .4536 19142  | .5954 81217  |
| 1.9530 | 0.9278 44994 | -0.3729 66041 | 3.4539 78708 | 3.5958 26597 |
| .9531  | .9278 07693  | .3730 58823   | .4543 38307  | .5961 72012  |
| .9532  | .9277 70382  | .3731 51602   | .4546 97942  | .5965 17464  |
| .9533  | .9277 33062  | .3732 44377   | .4550 57611  | .5968 62952  |
| .9534  | .9276 95733  | .3733 37149   | .4554 17315  | .5972 08476  |
| 1.9535 | 0.9276 58395 | -0.3734 29916 | 3.4557 77053 | 3.5975 54035 |
| .9536  | .9276 21047  | .3735 22680   | .4561 36825  | .5978 99631  |
| .9537  | .9275 83690  | .3736 15441   | .4564 96633  | .5982 45263  |
| .9538  | .9275 46324  | .3737 08197   | .4568 56474  | .5985 90930  |
| .9539  | .9275 08949  | .3738 00950   | .4572 16351  | .5989 36634  |
| 1.9540 | 0.9274 71564 | -0.3738 93699 | 3.4575 76262 | 3.5992 82374 |
| .9541  | .9274 34170  | .3739 86444   | .4579 36207  | .5996 28149  |
| .9542  | .9273 96767  | .3740 79186   | .4582 96187  | .5999 73961  |
| .9543  | .9273 59354  | .3741 71923   | .4586 56202  | .6003 19809  |
| .9544  | .9273 21932  | .3742 64658   | .4590 16251  | .6006 65552  |
| 1.9545 | 0.9272 84501 | -0.3743 57388 | 3.4593 76355 | 3.6010 11612 |
| .9546  | .9272 47061  | .3744 50114   | .4597 36454  | .6013 57567  |
| .9547  | .9272 09611  | .3745 42837   | .4600 96607  | .6017 03559  |
| .9548  | .9271 72152  | .3746 35556   | .4604 56724  | .6020 49587  |
| .9549  | .9271 34684  | .3747 28272   | .4608 16817  | .6023 95650  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.9550 | 0.9270 97207 | -0.3748 20983 | 3.4611 77274 | 3.6027 41750 |
| .9551  | .9270 59720  | .3749 13691   | .4615 37565  | .6030 87886  |
| .9552  | .9270 22224  | .3750 06395   | .4618 97891  | .6034 34058  |
| .9553  | .9269 84719  | .3750 99096   | .4622 58252  | .6037 80266  |
| .9554  | .9269 47204  | .3751 91792   | .4626 18647  | .6041 26509  |
| 1.9555 | 0.9269 09680 | -0.3752 84485 | 3.4629 79077 | 3.6044 72789 |
| .9556  | .9268 72147  | .3753 77174   | .4633 39542  | .6048 19105  |
| .9557  | .9268 34605  | .3754 69859   | .4637 00041  | .6051 65457  |
| .9558  | .9267 97053  | .3755 62541   | .4640 60575  | .6055 11845  |
| .9559  | .9267 59492  | .3756 55219   | .4644 21143  | .6058 58269  |
| 1.9560 | 0.9267 21922 | -0.3757 47993 | 3.4647 81746 | 3.6062 04729 |
| .9561  | .9266 84343  | .3758 40563   | .4651 42384  | .6065 51226  |
| .9562  | .9266 46754  | .3759 33230   | .4655 03057  | .6068 97758  |
| .9563  | .9266 09156  | .3760 25893   | .4658 63764  | .6072 44326  |
| .9564  | .9265 71549  | .3761 18552   | .4662 24506  | .6075 90931  |
| 1.9565 | 0.9265 33932 | -0.3762 11207 | 3.4665 85282 | 3.6079 37571 |
| .9566  | .9264 96307  | .3763 03858   | .4669 46093  | .6082 84248  |
| .9567  | .9264 58672  | .3763 96506   | .4673 06939  | .6086 30960  |
| .9568  | .9264 21027  | .3764 89150   | .4676 67819  | .6089 77709  |
| .9569  | .9263 83374  | .3765 81790   | .4680 28734  | .6093 24494  |
| 1.9570 | 0.9263 45711 | -0.3766 74427 | 3.4683 89684 | 3.6096 71315 |
| .9571  | .9263 08039  | .3767 67060   | .4687 50669  | .6100 18172  |
| .9572  | .9262 70358  | .3768 59688   | .4691 11688  | .6103 65065  |
| .9573  | .9262 32667  | .3769 52314   | .4694 72462  | .6107 11994  |
| .9574  | .9261 94967  | .3770 44935   | .4698 33830  | .6110 58960  |
| 1.9575 | 0.9261 57258 | -0.3771 37553 | 3.4701 94953 | 3.6114 05961 |
| .9576  | .9261 19540  | .3772 30166   | .4705 56111  | .6117 52999  |
| .9577  | .9260 81812  | .3773 22777   | .4709 17304  | .6121 00072  |
| .9578  | .9260 44075  | .3774 15383   | .4712 78531  | .6124 47182  |
| .9579  | .9260 06329  | .3775 07985   | .4716 39793  | .6127 94328  |
| 1.9580 | 0.9259 68573 | -0.3776 00584 | 3.4720 01090 | 3.6131 41510 |
| .9581  | .9259 30809  | .3776 93179   | .4723 62422  | .6134 88728  |
| .9582  | .9258 93035  | .3777 85770   | .4727 23788  | .6138 35982  |
| .9583  | .9258 55252  | .3778 78358   | .4730 85189  | .6141 83273  |
| .9584  | .9258 17459  | .3779 70941   | .4734 46625  | .6145 30599  |
| 1.9585 | 0.9257 79657 | -0.3780 63521 | 3.4738 08095 | 3.6148 77962 |
| .9586  | .9257 41846  | .3781 56097   | .4741 69600  | .6152 25361  |
| .9587  | .9257 04026  | .3782 48670   | .4745 31140  | .6155 72796  |
| .9588  | .9256 66197  | .3783 41238   | .4748 92715  | .6159 20267  |
| .9589  | .9256 28358  | .3784 33803   | .4752 54324  | .6162 67775  |
| 1.9590 | 0.9255 90510 | -0.3785 26364 | 3.4756 15968 | 3.6166 15318 |
| .9591  | .9255 52653  | .3786 18921   | .4759 77647  | .6169 62898  |
| .9592  | .9255 14786  | .3787 11474   | .4763 39361  | .6173 10514  |
| .9593  | .9254 76910  | .3788 04024   | .4767 01109  | .6176 58166  |
| .9594  | .9254 39025  | .3788 96570   | .4770 62893  | .6180 05854  |
| 1.9595 | 0.9254 01131 | -0.3789 89112 | 3.4774 24711 | 3.6183 53578 |
| .9596  | .9253 63227  | .3790 81650   | .4777 86563  | .6187 01339  |
| .9597  | .9253 25315  | .3791 74184   | .4781 48451  | .6190 49136  |
| .9598  | .9252 87393  | .3792 66715   | .4785 10373  | .6193 96969  |
| .9599  | .9252 49461  | .3793 59242   | .4788 72330  | .6197 44838  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.9600 | 0.9252 11521 | -0.3794 51765 | 3.4792 34322 | 3.6200 92743 |
| .9601  | .9251 73571  | .3795 44284   | .4795 96349  | .6204 40885  |
| .9602  | .9251 35612  | .3796 36800   | .4799 58410  | .6207 88662  |
| .9603  | .9250 97644  | .3797 29311   | .4803 20507  | .6211 36676  |
| .9604  | .9250 59666  | .3798 21819   | .4806 82638  | .6214 84726  |
| 1.9605 | 0.9250 21679 | -0.3799 14323 | 3.4810 44803 | 3.6218 32813 |
| .9606  | .9249 83683  | .3800 06823   | .4814 07004  | .6221 30935  |
| .9607  | .9249 45678  | .3800 99320   | .4817 69240  | .6225 29094  |
| .9608  | .9249 07663  | .3801 91813   | .4821 31510  | .6228 77289  |
| .9609  | .9248 69640  | .3802 84301   | .4824 93815  | .6232 25520  |
| 1.9610 | 0.9248 31606 | -0.3803 76786 | 3.4828 56155 | 3.6235 73788 |
| .9611  | .9247 93564  | .3804 69268   | .4832 18530  | .6239 22092  |
| .9612  | .9247 55513  | .3805 61745   | .4835 80940  | .6242 70432  |
| .9613  | .9247 17452  | .3806 54219   | .4839 43384  | .6246 18808  |
| .9614  | .9246 79382  | .3807 46689   | .4843 05863  | .6249 67220  |
| 1.9615 | 0.9246 41302 | -0.3808 39155 | 3.4846 68377 | 3.6253 15669 |
| .9616  | .9246 03214  | .3809 31617   | .4850 30926  | .6256 64154  |
| .9617  | .9245 65116  | .3810 24075   | .4853 93510  | .6260 12675  |
| .9618  | .9245 27009  | .3811 16530   | .4857 56129  | .6263 61233  |
| .9619  | .9244 88893  | .3812 08981   | .4861 18782  | .6267 09826  |
| 1.9620 | 0.9244 50767 | -0.3813 01428 | 3.4864 81471 | 3.6270 59457 |
| .9621  | .9244 12633  | .3813 93871   | .4868 44194  | .6274 07123  |
| .9622  | .9243 74489  | .3814 86310   | .4872 06952  | .6277 55925  |
| .9623  | .9243 36335  | .3815 78746   | .4875 69745  | .6281 04564  |
| .9624  | .9242 98173  | .3816 71177   | .4879 32573  | .6284 53339  |
| 1.9625 | 0.9242 60001 | -0.3817 63605 | 3.4882 95436 | 3.6288 02151 |
| .9626  | .9242 21820  | .3818 56029   | .4886 58334  | .6291 50998  |
| .9627  | .9241 83630  | .3819 48450   | .4890 21266  | .6294 99882  |
| .9628  | .9241 45430  | .3820 40866   | .4893 84234  | .6298 48803  |
| .9629  | .9241 07222  | .3821 33279   | .4897 47236  | .6301 97759  |
| 1.9630 | 0.9240 69004 | -0.3822 25688 | 3.4901 10273 | 3.6305 46752 |
| .9631  | .9240 30777  | .3823 18093   | .4904 73345  | .6308 95781  |
| .9632  | .9239 92540  | .3824 10494   | .4908 36452  | .6312 44847  |
| .9633  | .9239 54294  | .3825 02891   | .4911 99594  | .6315 93949  |
| .9634  | .9239 16040  | .3825 95285   | .4915 62771  | .6319 43087  |
| 1.9635 | 0.9238 77775 | -0.3826 87674 | 3.4919 25983 | 3.6322 92261 |
| .9636  | .9238 39502  | .3827 80060   | .4922 89230  | .6326 41472  |
| .9637  | .9238 01219  | .3828 72442   | .4926 52511  | .6329 90719  |
| .9638  | .9237 62928  | .3829 64820   | .4930 15828  | .6333 40002  |
| .9639  | .9237 24626  | .3830 57195   | .4933 79179  | .6336 89322  |
| 1.9640 | 0.9236 86316 | -0.3831 49565 | 3.4937 42566 | 3.6340 38678 |
| .9641  | .9236 47997  | .3832 41932   | .4941 05987  | .6343 88071  |
| .9642  | .9236 09668  | .3833 34295   | .4944 69443  | .6347 37499  |
| .9643  | .9235 71330  | .3834 26654   | .4948 32934  | .6350 86965  |
| .9644  | .9235 32982  | .3835 19009   | .4951 96461  | .6354 36466  |
| 1.9645 | 0.9234 94626 | -0.3836 11361 | 3.4955 60022 | 3.6357 86004 |
| .9646  | .9234 56260  | .3837 03708   | .4959 23618  | .6361 35578  |
| .9647  | .9234 17885  | .3837 96052   | .4962 87249  | .6364 85189  |
| .9648  | .9233 79501  | .3838 88392   | .4966 50915  | .6368 34835  |
| .9649  | .9233 41107  | .3839 80728   | .4970 14616  | .6371 84519  |



| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.9650 | 0.9233 02705 | -0.3840 73060 | 3.4973 78352 | 3.6375 34238 |
| .9651  | .9232 64293  | .3841 65388   | .4977 42123  | .6378 83994  |
| .9652  | .9232 25872  | .3842 57713   | .4981 05929  | .6382 53787  |
| .9653  | .9231 87441  | .3843 50034   | .4984 69769  | .6385 83616  |
| .9654  | .9231 49002  | .3844 42350   | .4988 33645  | .6389 33481  |
| 1.9655 | 0.9231 10553 | -0.3845 34663 | 3.4991 97556 | 3.6392 83382 |
| .9656  | .9230 72095  | .3846 26972   | .4995 61502  | .6396 33320  |
| .9657  | .9230 33627  | .3847 19278   | .4999 25483  | .6399 83295  |
| .9658  | .9229 95151  | .3848 11579   | .5002 89499  | .6403 33305  |
| .9659  | .9229 56665  | .3849 03877   | .5006 53549  | .6406 83353  |
| 1.9660 | 0.9229 18170 | -0.3849 96170 | 3.5010 17635 | 3.6410 33436 |
| .9661  | .9228 79666  | .3850 88460   | .5013 81756  | .6413 83556  |
| .9662  | .9228 41152  | .3851 80746   | .5017 45912  | .6417 33712  |
| .9663  | .9228 02630  | .3852 73029   | .5021 10103  | .6420 83905  |
| .9664  | .9227 64098  | .3853 65307   | .5024 74329  | .6424 34134  |
| 1.9665 | 0.9227 25557 | -0.3854 57581 | 3.5028 38590 | 3.6427 84400 |
| .9666  | .9226 87006  | .3855 49852   | .5032 02886  | .6431 34702  |
| .9667  | .9226 48447  | .3856 42119   | .5035 67217  | .6434 85041  |
| .9668  | .9226 09878  | .3857 34382   | .5039 31583  | .6438 35416  |
| .9669  | .9225 71300  | .3858 26641   | .5042 95984  | .6441 85827  |
| 1.9670 | 0.9225 32713 | -0.3859 18896 | 3.5046 60420 | 3.6445 36275 |
| .9671  | .9224 94116  | .3860 11147   | .5050 24891  | .6448 86759  |
| .9672  | .9224 55510  | .3861 03395   | .5053 89397  | .6452 37280  |
| .9673  | .9224 16895  | .3861 95638   | .5057 53938  | .6455 87837  |
| .9674  | .9223 78271  | .3862 87878   | .5061 18515  | .6459 38431  |
| 1.9675 | 0.9223 39638 | -0.3863 80114 | 3.5064 83126 | 3.6462 89061 |
| .9676  | .9223 00995  | .3864 72346   | .5068 47773  | .6466 39727  |
| .9677  | .9222 62343  | .3865 64574   | .5072 12454  | .6469 90430  |
| .9678  | .9222 23682  | .3866 56799   | .5075 77171  | .6473 41170  |
| .9679  | .9221 85012  | .3867 49019   | .5079 41922  | .6476 91946  |
| 1.9680 | 0.9221 46332 | -0.3868 41236 | 3.5083 06709 | 3.6480 42758 |
| .9681  | .9221 07644  | .3869 33448   | .5086 71531  | .6483 93607  |
| .9682  | .9220 68946  | .3870 25657   | .5090 36388  | .6487 44492  |
| .9683  | .9220 30239  | .3871 17862   | .5094 01280  | .6490 95414  |
| .9684  | .9219 91522  | .3872 10063   | .5097 66207  | .6494 46373  |
| 1.9685 | 0.9219 52797 | -0.3873 02260 | 3.5101 31169 | 3.6497 97368 |
| .9686  | .9219 14062  | .3873 94454   | .5104 96166  | .6501 48399  |
| .9687  | .9218 75318  | .3874 86643   | .5108 61199  | .6504 99467  |
| .9688  | .9218 36564  | .3875 78829   | .5112 26266  | .6508 50571  |
| .9689  | .9217 97802  | .3876 71011   | .5115 91369  | .6512 01712  |
| 1.9690 | 0.9217 59030 | -0.3877 63188 | 3.5119 56507 | 3.6515 52889 |
| .9691  | .9217 20249  | .3878 55362   | .5123 21679  | .6519 04103  |
| .9692  | .9216 81459  | .3879 47532   | .5126 86887  | .6522 55354  |
| .9693  | .9216 42660  | .3880 39699   | .5130 52131  | .6526 06641  |
| .9694  | .9216 03851  | .3881 31861   | .5134 17409  | .6529 57964  |
| 1.9695 | 0.9215 65033 | -0.3882 24019 | 3.5137 82722 | 3.6533 09324 |
| .9696  | .9215 26206  | .3883 16174   | .5141 48071  | .6536 60721  |
| .9697  | .9214 87370  | .3884 08325   | .5145 13454  | .6540 12154  |
| .9698  | .9214 48525  | .3885 00471   | .5148 78873  | .6543 63623  |
| .9699  | .9214 09670  | .3885 92614   | .5152 44327  | .6547 15130  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.9700 | 0.9213 70806 | -0.3886 84753 | 3.5156 09876 | 3.6550 66672 |
| .9701  | .9213 31933  | .3887 76889   | .5159 75340  | .6554 18252  |
| .9702  | .9212 93051  | .3888 69020   | .5163 40900  | .6557 69867  |
| .9703  | .9212 54159  | .3889 61147   | .5167 06494  | .6561 21520  |
| .9704  | .9212 15259  | .3890 53271   | .5170 72124  | .6564 73209  |
| 1.9705 | 0.9211 76349 | -0.3891 45390 | 3.5174 37789 | 3.6568 24934 |
| .9706  | .9211 37430  | .3892 37506   | .5178 03489  | .6571 76696  |
| .9707  | .9210 93501  | .3893 29618   | .5181 69224  | .6575 28495  |
| .9708  | .9210 59564  | .3894 21726   | .5185 34995  | .6578 80330  |
| .9709  | .9210 20617  | .3895 13850   | .5189 00800  | .6582 32202  |
| 1.9710 | 0.9209 81661 | -0.3896 05930 | 3.5192 66641 | 3.6585 84110 |
| .9711  | .9209 42696  | .3896 98026   | .5196 32517  | .6589 36055  |
| .9712  | .9209 03721  | .3897 90118   | .5199 98428  | .6592 88037  |
| .9713  | .9208 64738  | .3898 82207   | .5203 64375  | .6596 40055  |
| .9714  | .9208 25745  | .3899 74291   | .5207 30356  | .6599 92110  |
| 1.9715 | 0.9207 86743 | -0.3900 66372 | 3.5210 96373 | 3.6603 44201 |
| .9716  | .9207 47731  | .3901 58449   | .5214 62425  | .6606 96329  |
| .9717  | .9207 08711  | .3902 50521   | .5218 28512  | .6610 48493  |
| .9718  | .9206 69681  | .3903 42590   | .5221 94635  | .6614 00695  |
| .9719  | .9206 30643  | .3904 34655   | .5225 60793  | .6617 52932  |
| 1.9720 | 0.9205 91594 | -0.3905 26716 | 3.5229 26986 | 3.6621 05207 |
| .9721  | .9205 52537  | .3906 18774   | .5232 93214  | .6624 57618  |
| .9722  | .9205 13471  | .3907 10827   | .5236 59477  | .6628 09865  |
| .9723  | .9204 74395  | .3908 02876   | .5240 25776  | .6631 62250  |
| .9724  | .9204 35310  | .3908 94922   | .5243 92109  | .6635 14671  |
| 1.9725 | 0.9203 96216 | -0.3909 86963 | 3.5247 58479 | 3.6638 67128 |
| .9726  | .9203 57113  | .3910 79001   | .5251 24883  | .6642 19622  |
| .9727  | .9203 18000  | .3911 71035   | .5254 91322  | .6645 72153  |
| .9728  | .9202 78879  | .3912 63065   | .5258 57797  | .6649 24720  |
| .9729  | .9202 39748  | .3913 55091   | .5262 24307  | .6652 77325  |
| 1.9730 | 0.9202 00608 | -0.3914 47113 | 3.5265 90853 | 3.6656 29965 |
| .9731  | .9201 61458  | .3915 39131   | .5269 57433  | .6659 82643  |
| .9732  | .9201 22300  | .3916 31145   | .5273 24049  | .6663 35357  |
| .9733  | .9200 83132  | .3917 23155   | .5276 90700  | .6666 88108  |
| .9734  | .9200 43955  | .3918 15161   | .5280 57387  | .6670 40895  |
| 1.9735 | 0.9200 04769 | -0.3919 07164 | 3.5284 24109 | 3.6673 93719 |
| .9736  | .9199 65574  | .3919 99162   | .5287 90866  | .6677 46580  |
| .9737  | .9199 26369  | .3920 91157   | .5291 57658  | .6680 99477  |
| .9738  | .9198 87155  | .3921 83148   | .5295 24486  | .6684 52411  |
| .9739  | .9198 47932  | .3922 75134   | .5298 91348  | .6688 05382  |
| 1.9740 | 0.9198 08700 | -0.3923 67117 | 3.5302 58247 | 3.6691 58390 |
| .9741  | .9197 69459  | .3924 59096   | .5306 25180  | .6695 11434  |
| .9742  | .9197 30209  | .3925 51071   | .5309 92149  | .6698 64515  |
| .9743  | .9196 90949  | .3926 43042   | .5313 59153  | .6702 17632  |
| .9744  | .9196 51680  | .3927 35009   | .5317 26192  | .6705 70786  |
| 1.9745 | 0.9196 12402 | -0.3928 26973 | 3.5320 93267 | 3.6709 23977 |
| .9746  | .9195 73115  | .3929 18932   | .5324 60377  | .6712 77205  |
| .9747  | .9195 33818  | .3930 10887   | .5328 27523  | .6716 30470  |
| .9748  | .9194 94512  | .3931 02839   | .5331 94703  | .6719 83771  |
| .9749  | .9194 55197  | .3931 94786   | .5335 61919  | .6723 37108  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.9750 | 0.9194 15873 | -0.3932 86730 | 3.5339 29171 | 3.6726 90483 |
| .9751  | .9193 76540  | .3933 78669   | .5342 96458  | .6730 43894  |
| .9752  | .9193 37198  | .3934 70605   | .5346 63780  | .6733 97342  |
| .9753  | .9192 97846  | .3935 62537   | .5350 31137  | .6737 50827  |
| .9754  | .9192 58485  | .3936 54465   | .5353 98530  | .6741 04349  |
| 1.9755 | 0.9192 19115 | -0.3937 46388 | 3.5357 65958 | 3.6744 57907 |
| .9756  | .9191 79736  | .3938 38308   | .5361 33421  | .6748 11502  |
| .9757  | .9191 40347  | .3939 30224   | .5365 00920  | .6751 65133  |
| .9758  | .9191 00950  | .3940 22136   | .5368 68454  | .6755 18802  |
| .9759  | .9190 61543  | .3941 14045   | .5372 36024  | .6758 72507  |
| 1.9760 | 0.9190 22127 | -0.3942 05949 | 3.5376 03629 | 3.6762 26249 |
| .9761  | .9189 82702  | .3942 97849   | .5379 71269  | .6765 80028  |
| .9762  | .9189 43267  | .3943 89745   | .5383 38945  | .6769 33843  |
| .9763  | .9189 03824  | .3944 81638   | .5387 06656  | .6772 87696  |
| .9764  | .9188 64371  | .3945 73526   | .5390 74402  | .6776 41585  |
| 1.9765 | 0.9188 24909 | -0.3946 65410 | 3.5394 42184 | 3.6779 95511 |
| .9766  | .9187 85438  | .3947 57291   | .5398 10001  | .6783 49473  |
| .9767  | .9187 45958  | .3948 49168   | .5401 77854  | .6787 03473  |
| .9768  | .9187 06468  | .3949 41040   | .5405 45742  | .6790 57509  |
| .9769  | .9186 66970  | .3950 32909   | .5409 13666  | .6794 11582  |
| 1.9770 | 0.9186 27462 | -0.3951 24774 | 3.5412 81625 | 3.6797 65691 |
| .9771  | .9185 87945  | .3952 16634   | .5416 49619  | .6801 19838  |
| .9772  | .9185 48418  | .3953 08491   | .5420 17648  | .6804 74021  |
| .9773  | .9185 08883  | .3954 00344   | .5423 85714  | .6808 28242  |
| .9774  | .9184 69338  | .3954 92193   | .5427 53814  | .6811 82499  |
| 1.9775 | 0.9184 29784 | -0.3955 84038 | 3.5431 21950 | 3.6815 36792 |
| .9776  | .9183 90221  | .3956 75879   | .5434 90121  | .6818 91123  |
| .9777  | .9183 50649  | .3957 67716   | .5438 58328  | .6822 45490  |
| .9778  | .9183 11068  | .3958 59549   | .5442 26571  | .6825 99895  |
| .9779  | .9182 71477  | .3959 51378   | .5445 94848  | .6829 54336  |
| 1.9780 | 0.9182 31878 | -0.3960 43203 | 3.5449 63161 | 3.6833 08814 |
| .9781  | .9181 92269  | .3961 35025   | .5453 31510  | .6836 63328  |
| .9782  | .9181 52651  | .3962 26842   | .5456 99894  | .6840 17880  |
| .9783  | .9181 13023  | .3963 18655   | .5460 68314  | .6843 72468  |
| .9784  | .9180 73387  | .3964 10464   | .5464 36769  | .6847 27094  |
| 1.9785 | 0.9180 33741 | -0.3965 02270 | 3.5468 05259 | 3.6850 81756 |
| .9786  | .9179 94086  | .3965 94071   | .5471 73785  | .6854 36455  |
| .9787  | .9179 54422  | .3966 85869   | .5475 42346  | .6857 91190  |
| .9788  | .9179 14749  | .3967 77662   | .5479 10943  | .6861 45963  |
| .9789  | .9178 75067  | .3968 69452   | .5482 79576  | .6865 00773  |
| 1.9790 | 0.9178 35375 | -0.3969 61237 | 3.5486 48243 | 3.6868 55619 |
| .9791  | .9177 95675  | .3970 53019   | .5490 16947  | .6872 10502  |
| .9792  | .9177 55965  | .3971 44796   | .5493 85685  | .6875 65422  |
| .9793  | .9177 16246  | .3972 36570   | .5497 54460  | .6879 20379  |
| .9794  | .9176 76517  | .3973 28339   | .5501 23270  | .6882 75373  |
| .9795  | 0.9176 36780 | -0.3974 20105 | 3.5504 92115 | 3.6886 30404 |
| .9796  | .9175 97033  | .3975 11867   | .5508 60996  | .6889 85472  |
| .9797  | .9175 57278  | .3976 03625   | .5512 29912  | .6893 40576  |
| .9798  | .9175 17513  | .3977 95378   | .5515 98864  | .6896 95718  |
| .9799  | .9174 77739  | .3977 87128   | .5519 67851  | .6900 50896  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.9800 | 0.9174 37955 | -0.3978 78874 | 3.5523 56374 | 3.6904 06111 |
| .9801  | .9173 98163  | .3979 70616   | .5527 33932  | .6907 61363  |
| .9802  | .9173 58361  | .3980 62353   | .5530 73026  | .6911 16652  |
| .9803  | .9173 18550  | .3981 54087   | .5534 44156  | .6914 71978  |
| .9804  | .9172 78730  | .3982 45617   | .5538 13321  | .6918 27341  |
| 1.9805 | 0.9172 38901 | -0.3983 37543 | 3.5541 82521 | 3.6921 82741 |
| .9806  | .9171 99063  | .3984 29265   | .5545 51757  | .6925 38178  |
| .9807  | .9171 59215  | .3985 20983   | .5549 21029  | .6928 93651  |
| .9808  | .9171 19359  | .3986 12697   | .5552 90336  | .6932 49162  |
| .9809  | .9170 79493  | .3987 04407   | .5556 59679  | .6936 04709  |
| 1.9810 | 0.9170 39618 | -0.3987 96113 | 3.5560 29057 | 3.6939 60294 |
| .9811  | .9169 99734  | .3988 87815   | .5563 98471  | .6943 15915  |
| .9812  | .9169 59840  | .3989 79513   | .5567 67920  | .6946 71574  |
| .9813  | .9169 19938  | .3990 71207   | .5571 37405  | .6950 27269  |
| .9814  | .9168 80026  | .3991 62897   | .5575 06925  | .6953 83001  |
| 1.9815 | 0.9168 40105 | -0.3992 54583 | 3.5578 76482 | 3.6957 38770 |
| .9816  | .9168 00175  | .3993 46265   | .5582 46073  | .6960 94576  |
| .9817  | .9167 60236  | .3994 37943   | .5586 15700  | .6964 50419  |
| .9818  | .9167 20287  | .3995 29617   | .5589 85363  | .6968 06300  |
| .9819  | .9166 80330  | .3996 21287   | .5593 55062  | .6971 62217  |
| 1.9820 | 0.9166 40363 | -0.3997 12953 | 3.5597 24786 | 3.6975 18171 |
| .9821  | .9166 00387  | .3998 04615   | .5600 94565  | .6978 74162  |
| .9822  | .9165 60402  | .3998 96273   | .5604 64371  | .6982 30189  |
| .9823  | .9165 20408  | .3999 87927   | .5608 34211  | .6985 86254  |
| .9824  | .9164 80405  | .4000 79577   | .5612 04086  | .6989 42356  |
| 1.9825 | 0.9164 40392 | -0.4001 71223 | 3.5615 74000 | 3.6992 98495 |
| .9826  | .9164 00370  | .4002 62865   | .5619 43848  | .6996 54671  |
| .9827  | .9163 60340  | .4003 54503   | .5623 13931  | .7000 10884  |
| .9828  | .9163 20300  | .4004 46137   | .5626 83950  | .7003 67134  |
| .9829  | .9162 80250  | .4005 37767   | .5630 54004  | .7007 23421  |
| 1.9830 | 0.9162 40192 | -0.4006 29393 | 3.5634 24034 | 3.7010 79745 |
| .9831  | .9162 00124  | .4007 21015   | .5637 94220  | .7014 36106  |
| .9832  | .9161 60048  | .4008 12633   | .5641 64362  | .7017 92504  |
| .9833  | .9161 19962  | .4009 04247   | .5645 34579  | .7021 48936  |
| .9834  | .9160 79867  | .4009 95857   | .5649 04811  | .7025 05410  |
| 1.9835 | 0.9160 39763 | -0.4010 87483 | 3.5652 75030 | 3.7028 61919 |
| .9836  | .9159 99649  | .4011 79035   | .5656 45334  | .7032 18465  |
| .9837  | .9159 59527  | .4012 70663   | .5660 15723  | .7035 75049  |
| .9838  | .9159 19395  | .4013 62257   | .5663 86099  | .7039 31669  |
| .9839  | .9158 79255  | .4014 53847   | .5667 56510  | .7042 88326  |
| 1.9840 | 0.9158 39105 | -0.4015 45433 | 3.5671 26853 | 3.7046 45020 |
| .9841  | .9157 98945  | .4016 37015   | .5674 97439  | .7050 01751  |
| .9842  | .9157 58777  | .4017 28593   | .5678 67957  | .7053 58519  |
| .9843  | .9157 18600  | .4018 20163   | .5682 38511  | .7057 15325  |
| .9844  | .9156 78413  | .4019 11736   | .5686 09100  | .7060 72167  |
| 1.9845 | 0.9156 38217 | -0.4020 03302 | 3.5689 79725 | 3.7064 29047 |
| .9846  | .9155 98012  | .4020 94864   | .5693 50366  | .7067 85963  |
| .9847  | .9155 57798  | .4021 86422   | .5697 21082  | .7071 42917  |
| .9848  | .9155 17575  | .4022 77976   | .5700 91814  | .7074 99907  |
| .9849  | .9154 77343  | .4023 69525   | .5704 62582  | .7078 56935  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.9850 | 0.9154 37101 | -0.4024 61071 | 3.5708 33386 | 3.7082 14000 |
| .9851  | .9153 96851  | .4025 52613   | .5712 04225  | .7085 71102  |
| .9852  | .9153 56591  | .4026 44150   | .5715 75100  | .7089 28241  |
| .9853  | .9153 16322  | .4027 35684   | .5719 46011  | .7092 85417  |
| .9854  | .9152 76044  | .4028 27214   | .5723 16957  | .7096 42630  |
| 1.9855 | 0.9152 35756 | -0.4029 18739 | 3.5726 87939 | 3.7099 99880 |
| .9856  | .9151 95460  | .4030 10261   | .5730 58957  | .7103 57167  |
| .9857  | .9151 55154  | .4031 01778   | .5734 30011  | .7107 14492  |
| .9858  | .9151 14839  | .4031 93292   | .5738 01100  | .7110 71853  |
| .9859  | .9150 74516  | .4032 84801   | .5741 72225  | .7114 29252  |
| 1.9860 | 0.9150 34183 | -0.4033 76307 | 3.5745 43386 | 3.7117 86688 |
| .9861  | .9149 93840  | .4034 67808   | .5749 14582  | .7121 44161  |
| .9862  | .9149 53489  | .4035 59305   | .5752 85815  | .7125 01671  |
| .9863  | .9149 13128  | .4036 50799   | .5756 57083  | .7128 59218  |
| .9864  | .9148 72759  | .4037 42288   | .5760 28386  | .7132 16802  |
| 1.9865 | 0.9148 32380 | -0.4038 33773 | 3.5763 99726 | 3.7135 74424 |
| .9866  | .9147 91992  | .4039 25255   | .5767 71101  | .7139 32082  |
| .9867  | .9147 51595  | .4040 16732   | .5771 42512  | .7142 89778  |
| .9868  | .9147 11189  | .4041 08205   | .5775 13959  | .7146 47511  |
| .9869  | .9146 70773  | .4041 99674   | .5778 85442  | .7150 05281  |
| 1.9870 | 0.9146 30349 | -0.4042 91139 | 3.5782 56960 | 3.7153 63088 |
| .9871  | .9145 89915  | .4043 82600   | .5786 28514  | .7157 20932  |
| .9872  | .9145 49472  | .4044 74057   | .5790 00104  | .7160 78813  |
| .9873  | .9145 09020  | .4045 65510   | .5793 71730  | .7164 36732  |
| .9874  | .9144 68559  | .4046 56959   | .5797 43392  | .7167 94688  |
| 1.9875 | 0.9144 28089 | -0.4047 48404 | 3.5801 15089 | 3.7171 52681 |
| .9876  | .9143 87609  | .4048 39844   | .5804 86822  | .7175 10711  |
| .9877  | .9143 47121  | .4049 31281   | .5808 58591  | .7178 68778  |
| .9878  | .9143 06623  | .4050 22714   | .5812 30396  | .7182 26883  |
| .9879  | .9142 66116  | .4051 14143   | .5816 02237  | .7185 85024  |
| 1.9880 | 0.9142 25600 | -0.4052 05567 | 3.5819 74113 | 3.7189 43203 |
| .9881  | .9141 85075  | .4052 96988   | .5823 46025  | .7193 01419  |
| .9882  | .9141 44541  | .4053 88404   | .5827 17973  | .7196 59672  |
| .9883  | .9141 03998  | .4054 79817   | .5830 89957  | .7200 17963  |
| .9884  | .9140 63445  | .4055 71225   | .5834 61977  | .7203 76290  |
| 1.9885 | 0.9140 22883 | -0.4056 62629 | 3.5838 34033 | 3.7207 34655 |
| .9886  | .9139 82312  | .4057 54029   | .5842 06124  | .7210 93057  |
| .9887  | .9139 41733  | .4058 45426   | .5845 78251  | .7214 51496  |
| .9888  | .9139 01143  | .4059 36818   | .5849 50414  | .7218 09973  |
| .9889  | .9138 60545  | .4060 28206   | .5853 22613  | .7221 68486  |
| 1.9890 | 0.9138 19938 | -0.4061 19590 | 3.5856 94848 | 3.7225 27037 |
| .9891  | .9137 79321  | .4062 10970   | .5860 67119  | .7228 85625  |
| .9892  | .9137 38696  | .4063 02346   | .5864 39425  | .7232 44251  |
| .9893  | .9136 98061  | .4063 93718   | .5868 11767  | .7236 02913  |
| .9894  | .9136 57417  | .4064 85085   | .5871 84146  | .7239 61613  |
| 1.9895 | 0.9136 16764 | -0.4065 76449 | 3.5875 56560 | 3.7243 20350 |
| .9896  | .9135 76102  | .4066 67809   | .5879 29010  | .7246 79124  |
| .9897  | .9135 35430  | .4067 59164   | .5883 01496  | .7250 37936  |
| .9898  | .9134 94750  | .4068 50516   | .5886 74017  | .7253 96785  |
| .9899  | .9134 54060  | .4069 41863   | .5890 46575  | .7257 55671  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.9900 | 0.9134 13361 | -0.4070 33207 | 3.5894 12168 | 3.7261 14594 |
| .9901  | .9133 72653  | .4071 24546   | .5897 91798  | .7264 73554  |
| .9902  | .9133 31936  | .4072 15881   | .5901 64483  | .7266 32552  |
| .9903  | .9132 91210  | .4073 07212   | .5905 37164  | .7271 91587  |
| .9904  | .9132 50475  | .4073 98539   | .5909 09101  | .7275 50660  |
| 1.9905 | 0.9132 09731 | -0.4074 89862 | 3.5912 82674 | 3.7279 09766 |
| .9906  | .9131 68877  | .4075 81151   | .5916 55483  | .7282 68916  |
| .9907  | .9131 28214  | .4076 72436   | .5920 28328  | .7286 28100  |
| .9908  | .9130 87443  | .4077 63307   | .5924 01209  | .7289 87322  |
| .9909  | .9130 46662  | .4078 55114   | .5927 74126  | .7293 46561  |
| 1.9910 | 0.9130 05871 | -0.4079 46416 | 3.5931 47076 | 3.7297 05877 |
| .9911  | .9129 65072  | .4080 37715   | .5935 20067  | .7300 65210  |
| .9912  | .9129 24264  | .4081 29009   | .5938 93091  | .7304 24551  |
| .9913  | .9128 83446  | .4082 20300   | .5942 66152  | .7307 83985  |
| .9914  | .9128 42620  | .4083 11586   | .5946 39248  | .7311 43434  |
| 1.9915 | 0.9128 01784 | -0.4084 02868 | 3.5950 12361 | 3.7315 02917 |
| .9916  | .9127 60939  | .4084 94146   | .5953 85549  | .7318 62436  |
| .9917  | .9127 20085  | .4085 85420   | .5957 58753  | .7322 21954  |
| .9918  | .9126 79222  | .4086 76690   | .5961 31993  | .7325 81588  |
| .9919  | .9126 38350  | .4087 67956   | .5965 05269  | .7329 41220  |
| 1.9920 | 0.9125 97469 | -0.4088 59218 | 3.5968 78581 | 3.7333 00889 |
| .9921  | .9125 56578  | .4089 50476   | .5972 51930  | .7336 60596  |
| .9922  | .9125 15679  | .4090 41729   | .5976 25314  | .7340 20340  |
| .9923  | .9124 74770  | .4091 32979   | .5979 98734  | .7343 80121  |
| .9924  | .9124 33852  | .4092 24224   | .5983 72190  | .7347 39939  |
| 1.9925 | 0.9123 92925 | -0.4093 15466 | 3.5987 45682 | 3.7350 99795 |
| .9926  | .9123 51989  | .4094 06703   | .5991 19210  | .7354 59689  |
| .9927  | .9123 11044  | .4094 97936   | .5994 92773  | .7358 19619  |
| .9928  | .9122 70089  | .4095 89165   | .5998 66373  | .7361 79587  |
| .9929  | .9122 29126  | .4096 80390   | .6002 40009  | .7365 39592  |
| 1.9930 | 0.9121 88153 | -0.4097 71611 | 3.6006 13681 | 3.7368 99635 |
| .9931  | .9121 47171  | .4098 62828   | .6009 87389  | .7372 59715  |
| .9932  | .9121 06181  | .4099 54040   | .6013 61133  | .7376 19833  |
| .9933  | .9120 65181  | .4100 45249   | .6017 34913  | .7379 79987  |
| .9934  | .9120 24172  | .4101 36453   | .6021 08729  | .7383 40160  |
| 1.9935 | 0.9119 83153 | -0.4102 27654 | 3.6024 82581 | 3.7387 00409 |
| .9936  | .9119 42126  | .4103 18850   | .6028 56469  | .7390 60676  |
| .9937  | .9119 01090  | .4104 10042   | .6032 30393  | .7394 20980  |
| .9938  | .9118 60044  | .4105 01230   | .6036 04354  | .7397 81322  |
| .9939  | .9118 18989  | .4105 92414   | .6039 78350  | .7401 41701  |
| 1.9940 | 0.9117 77926 | -0.4106 83594 | 3.6043 52382 | 3.7405 02118 |
| .9941  | .9117 36853  | .4107 74770   | .6047 26450  | .7408 62572  |
| .9942  | .9116 95771  | .4108 65941   | .6051 00554  | .7412 23063  |
| .9943  | .9116 54679  | .4109 57109   | .6054 74695  | .7415 83592  |
| .9944  | .9116 13579  | .4110 48272   | .6058 48871  | .7419 44158  |
| 1.9945 | 0.9115 72470 | -0.4111 39432 | 3.6062 23084 | 3.7423 04762 |
| .9946  | .9115 31351  | .4112 30587   | .6065 97332  | .7426 65403  |
| .9947  | .9114 90224  | .4113 21738   | .6069 71617  | .7430 26081  |
| .9948  | .9114 49087  | .4114 12885   | .6073 45937  | .7433 86797  |
| .9949  | .9114 07941  | .4115 04028   | .6077 20294  | .7437 47550  |

| x      | sin x        | cos x         | sinh x       | cosh x       |
|--------|--------------|---------------|--------------|--------------|
| 1.9950 | 0.9113 66786 | -0.4115 95167 | 3.6080 94687 | 3.7441 08341 |
| .9951  | .9113 25622  | .4116 86301   | .6084 69116  | .7444 69169  |
| .9952  | .9112 84449  | .4117 77432   | .6088 43581  | .7448 30035  |
| .9953  | .9112 43267  | .4118 68558   | .6092 18082  | .7451 90938  |
| .9954  | .9112 02075  | .4119 59680   | .6095 92619  | .7455 51878  |
| 1.9955 | 0.9111 60875 | -0.4120 50798 | 3.6099 67192 | 3.7459 12856 |
| .9956  | .9111 19665  | .4121 41912   | .6103 41801  | .7462 73872  |
| .9957  | .9110 78446  | .4122 33022   | .6107 16447  | .7466 34925  |
| .9958  | .9110 37218  | .4123 24128   | .6110 91128  | .7469 96015  |
| .9959  | .9109 95981  | .4124 15230   | .6114 65846  | .7473 57143  |
| 1.9960 | 0.9109 54735 | -0.4125 06327 | 3.6118 40600 | 3.7477 18308 |
| .9961  | .9109 13480  | .4125 97421   | .6122 15390  | .7480 79511  |
| .9962  | .9108 72216  | .4126 88510   | .6125 90216  | .7484 40751  |
| .9963  | .9108 30942  | .4127 79595   | .6129 65078  | .7488 02029  |
| .9964  | .9107 89660  | .4128 70676   | .6133 39976  | .7491 63344  |
| 1.9965 | 0.9107 48368 | -0.4129 61753 | 3.6137 14911 | 3.7495 24697 |
| .9966  | .9107 07068  | .4130 52826   | .6140 89881  | .7498 86087  |
| .9967  | .9106 65758  | .4131 43895   | .6144 64888  | .7502 47515  |
| .9968  | .9106 24439  | .4132 34959   | .6148 39931  | .7506 08980  |
| .9969  | .9105 83111  | .4133 26019   | .6152 15010  | .7509 70483  |
| 1.9970 | 0.9105 41774 | -0.4134 17076 | 3.6155 90125 | 3.7513 32023 |
| .9971  | .9105 00427  | .4135 08128   | .6159 65276  | .7516 93601  |
| .9972  | .9104 59072  | .4135 99176   | .6163 40463  | .7520 55216  |
| .9973  | .9104 17705  | .4136 90220   | .6167 15687  | .7524 16869  |
| .9974  | .9103 76334  | .4137 81259   | .6170 90947  | .7527 78560  |
| 1.9975 | 0.9103 34951 | -0.4138 72295 | 3.6174 66243 | 3.7531 40287 |
| .9976  | .9102 93559  | .4139 63326   | .6178 41575  | .7535 02053  |
| .9977  | .9102 52159  | .4140 54354   | .6182 16943  | .7538 63856  |
| .9978  | .9102 10749  | .4141 45377   | .6185 92348  | .7542 25696  |
| .9979  | .9101 69330  | .4142 36396   | .6189 67788  | .7545 87574  |
| 1.9980 | 0.9101 27901 | -0.4143 27411 | 3.6193 43265 | 3.7549 49490 |
| .9981  | .9100 86464  | .4144 18421   | .6197 18778  | .7553 11443  |
| .9982  | .9100 45018  | .4145 09428   | .6200 94327  | .7556 73434  |
| .9983  | .9100 03562  | .4146 00430   | .6204 69913  | .7560 35462  |
| .9984  | .9099 62098  | .4146 91429   | .6208 45535  | .7563 97528  |
| 1.9985 | 0.9099 20624 | -0.4147 82423 | 3.6212 21192 | 3.7567 59631 |
| .9986  | .9098 79141  | .4148 73413   | .6215 96886  | .7571 21772  |
| .9987  | .9098 37649  | .4149 64399   | .6219 72617  | .7574 83950  |
| .9988  | .9097 96148  | .4150 55380   | .6223 48383  | .7578 46166  |
| .9989  | .9097 54638  | .4151 46358   | .6227 24186  | .7582 08420  |
| 1.9990 | 0.9097 13119 | -0.4152 37331 | 3.6231 00025 | 3.7585 70711 |
| .9991  | .9096 71591  | .4153 28300   | .6234 75900  | .7589 33040  |
| .9992  | .9096 30053  | .4154 19266   | .6238 51812  | .7592 95406  |
| .9993  | .9095 88507  | .4155 10226   | .6242 27759  | .7596 57810  |
| .9994  | .9095 46951  | .4156 01183   | .6246 03743  | .7600 20252  |
| 1.9995 | 0.9095 05387 | -0.4156 92136 | 3.6249 79763 | 3.7603 82731 |
| .9996  | .9094 63813  | .4157 83084   | .6253 55820  | .7607 45248  |
| .9997  | .9094 22230  | .4158 74029   | .6257 31912  | .7611 07802  |
| .9998  | .9093 80638  | .4159 64969   | .6261 08041  | .7614 70394  |
| .9999  | .9093 39037  | .4160 55905   | .6264 84206  | .7618 33024  |

SUPPLEMENTARY  
TABLES



TABLE II

402

| x   | sin x         | cos x         | sinh x         | cosh x         |
|-----|---------------|---------------|----------------|----------------|
| 0.0 | +0.0000 00000 | +1.0000 00000 | + 0.0000 00000 | + 1.0000 00000 |
| .1  | .0998 33417   | 0.9950 04165  | 0.1001 66750   | 1.0050 04168   |
| .2  | .1986 69331   | .9800 66578   | 0.2013 36003   | 1.0200 66756   |
| .3  | .2955 20207   | .9553 36489   | 0.3045 20293   | 1.0453 38514   |
| .4  | .3894 18342   | .9210 60994   | 0.4107 52326   | 1.0810 72372   |
| 0.5 | +0.4794 25539 | +0.8775 82562 | + 0.5210 95305 | + 1.1276 25965 |
| .6  | .5646 42473   | .8253 35615   | 0.6366 53582   | 1.1854 65218   |
| .7  | .6442 17687   | .7648 42187   | 0.7585 83702   | 1.2551 69006   |
| .8  | .7173 56091   | .6967 06709   | 0.8801 05982   | 1.3374 34346   |
| .9  | .7833 26910   | .6216 09968   | 1.0265 16726   | 1.4330 86385   |
| 1.0 | +0.8414 70985 | +0.5403 02306 | + 1.1752 01194 | + 1.5430 80635 |
| .1  | .8912 07360   | .4535 96121   | 1.3356 47470   | 1.6685 18554   |
| .2  | .9320 39086   | .3623 57754   | 1.5094 61355   | 1.8106 55367   |
| .3  | .9635 58185   | .2674 98829   | 1.6983 82437   | 1.9709 14230   |
| .4  | .9854 49730   | .1699 67143   | 1.9043 01501   | 2.1508 98465   |
| 1.5 | +0.9974 94987 | +0.0707 37202 | + 2.1222 79455 | + 2.3524 09615 |
| .6  | .9995 73603   | -0.0291 99522 | 2.3755 67953   | 2.5774 64471   |
| .7  | .9916 64810   | .1288 44494   | 2.6456 31934   | 2.8283 15458   |
| .8  | .9738 47651   | .2272 02095   | 2.9421 74288   | 3.1074 73176   |
| .9  | .9463 00088   | .3232 89567   | 3.2681 62912   | 3.4177 23581   |
| 2.0 | +0.9092 97427 | -0.4161 46837 | + 3.6263 60408 | + 3.7621 95601 |
| .1  | .8632 09367   | .5048 46105   | 4.0218 56742   | 4.1443 13170   |
| .2  | .8084 96404   | .5885 01117   | 4.4571 05171   | 4.5679 08320   |
| .3  | .7457 05212   | .6662 76021   | 4.9369 61806   | 5.0372 20649   |
| .4  | .6754 63181   | .7373 93716   | 5.4662 29214   | 5.5569 47167   |
| 2.5 | +0.5984 72144 | -0.8011 43616 | + 6.0502 04481 | + 6.1322 89480 |
| .6  | .5155 01372   | .8568 38753   | 6.6247 32228   | 6.7600 05807   |
| .7  | .4273 79880   | .9040 72142   | 7.4062 63106   | 7.4734 68619   |
| .8  | .3349 88150   | .9422 22341   | 8.1919 18354   | 8.2527 28417   |
| .9  | .2392 49329   | .9709 58165   | 9.0595 61075   | 9.1145 84295   |
| 3.0 | +0.1411 20008 | -0.9899 92497 | +10.0178 74927 | +10.0676 61996 |
| .1  | +0.0415 80662 | .9991 35150   | 11.0764 51040  | 11.1215 00242  |
| .2  | -0.0583 74143 | .9982 94776   | 12.2458 83997  | 12.2866 46201  |
| .3  | .1577 45694   | .9874 79770   | 13.5378 77877  | 13.5747 61044  |
| .4  | .2555 41102   | .9667 98193   | 14.9653 63389  | 14.9987 36659  |
| 3.5 | -0.3507 83228 | -0.9364 56687 | +15.5426 27283 | +16.5728 24671 |
| .6  | .4425 20443   | .8967 58416   | 16.2854 55361  | 16.3127 79083  |
| .7  | .5298 36141   | .8481 00032   | 20.2112 90417  | 20.2360 13943  |
| .8  | .6118 57891   | .7909 67712   | 22.3394 06861  | 22.3617 77633  |
| .9  | .6877 66159   | .7259 32304   | 24.6911 03597  | 24.7113 45508  |
| 4.0 | -0.7568 02495 | -0.6536 43621 | +27.2899 17197 | +27.3082 32836 |
| .1  | .8182 77111   | .5748 23947   | 30.1618 57461  | 30.1784 30136  |
| .2  | .8715 75772   | .4902 60821   | 33.3356 67732  | 33.3506 63309  |
| .3  | .9161 65937   | .4007 99172   | 36.8431 12570  | 36.8566 81129  |
| .4  | .9516 02074   | .3073 32870   | 40.7192 95663  | 40.7315 73002  |
| 4.5 | -0.9775 30118 | -0.2107 95799 | +45.0030 11152 | +45.0141 20149 |
| .6  | .9936 91004   | .1121 52527   | 49.7371 31903  | 49.7471 83739  |
| .7  | .9999 23268   | -0.0123 88663 | 54.9690 38589  | 54.9781 33865  |
| .8  | .9961 64609   | +0.0874 98983 | 60.7510 93886  | 60.7593 23633  |
| .9  | .9824 52613   | .1865 12369   | 67.1411 66551  | 67.1486 13134  |
| 5.0 | -0.9589 24275 | +0.2836 62185 | +74.2032 10578 | +74.2099 48525 |

TABLE II

| x    | sin x         | cos x         | sinh x            | cosh x            |
|------|---------------|---------------|-------------------|-------------------|
| 5.0  | -0.9589 24275 | +0.2836 62185 | + 74.2032 10578   | + 74.2099 48525   |
| .1   | .9258 14682   | .3779 77743   | 82.0079 05277     | 82.0140 02023     |
| .2   | .8834 54656   | .4685 16671   | 90.6333 82655     | 90.6388 79220     |
| .3   | .8322 67442   | .5543 74336   | 100.1659 09190    | 100.1709 00784    |
| .4   | .7727 64488   | .6346 92876   | 110.7009 49812    | 110.7054 66393    |
| 5.5  | -0.7055 40326 | +0.7086 69774 | + 122.3439 22746  | + 122.3480 09518  |
| .6   | .6312 66638   | .7755 65879   | 135.2113 54781    | 135.2150 52645    |
| .7   | .5506 85543   | .8347 12785   | 149.4320 27501    | 149.4353 73466    |
| .8   | .4646 02179   | .8855 19517   | 165.1482 66177    | 165.1512 93732    |
| .9   | .3738 76665   | .9274 78431   | 182.5173 64210    | 182.5201 03655    |
| 6.0  | -0.2794 15498 | +0.9601 70287 | + 201.7131 57370  | + 201.7156 36122  |
| .1   | .1821 62504   | .9832 68438   | 222.9277 63607    | 222.9300 06475    |
| .2   | -0.0830 89403 | .9965 42097   | 246.3735 05831    | 246.3755 35252    |
| .3   | +0.0168 13900 | .9998 58636   | 272.2850 36911    | 272.2868 73215    |
| .4   | .1165 49205   | .9931 84919   | 300.9216 88157    | 300.9233 49715    |
| 6.5  | +0.2151 19988 | +0.9765 87626 | + 332.5700 64803  | + 332.5715 68242  |
| .6   | .3115 41364   | .9502 32592   | 367.5469 14437    | 367.5482 74805    |
| .7   | .4048 49921   | .9143 83148   | 406.2022 97128    | 406.2035 28040    |
| .8   | .4941 13351   | .8693 97490   | 448.9230 88938    | 448.9242 02713    |
| .9   | .5784 39764   | .8157 25100   | 496.1368 53910    | 496.1378 61695    |
| 7.0  | +0.6569 86599 | +0.7539 02254 | + 548.3161 23273  | + 548.3170 35155  |
| .1   | .7289 69040   | .6845 46666   | 605.9831 24694    | 605.9839 49799    |
| .2   | .7936 67864   | .6083 51315   | 669.7150 08904    | 669.7157 55490    |
| .3   | .8504 36621   | .5260 77517   | 740.1496 26023    | 740.1503 01562    |
| .4   | .8987 08096   | .4385 47328   | 817.9919 09372    | 817.9925 20624    |
| 7.5  | +0.9379 99977 | +0.3466 35318 | + 904.0209 30686  | + 904.0214 83770  |
| .6   | .9679 19672   | .2512 59843   | 999.0976 97326    | 999.0981 97778    |
| .7   | .9881 68234   | .1533 73862   | 1104.1737 69530   | 1104.1742 22357   |
| .8   | .9985 43345   | +0.0539 55421 | 1220.3007 83945   | 1220.3011 93680   |
| .9   | .9989 41342   | -0.0460 02126 | 1348.6409 78762   | 1348.6413 49506   |
| 8.0  | +0.9893 58247 | -0.1455 00034 | + 1490.4788 25790 | + 1490.4791 61252 |
| .1   | .9698 89811   | .2435 44154   | 1647.2338 85872   | 1647.2341 89411   |
| .2   | .9407 30557   | .3391 54861   | 1820.4750 16339   | 1820.4752 90993   |
| .3   | .9021 71834   | .4313 76845   | 2011.9360 72653   | 2011.9363 21170   |
| .4   | .8545 98908   | .5192 88654   | 2223.5332 61416   | 2223.5334 86284   |
| 8.5  | +0.7984 87113 | -0.6020 11903 | + 2457.3843 18415 | + 2457.3845 21884 |
| .6   | .7343 97098   | .6787 20047   | 2715.8297 03629   | 2715.8298 87734   |
| .7   | .6629 69230   | .7486 46646   | 3001.4560 25338   | 3001.4561 91923   |
| .8   | .5849 17193   | .8110 93014   | 3317.1219 27772   | 3317.1220 78505   |
| .9   | .5010 20856   | .8654 35209   | 3665.9867 01384   | 3665.9868 37772   |
| 9.0  | +0.4121 18485 | -0.9111 30262 | + 4051.5419 02083 | + 4051.5420 25493 |
| .1   | .3190 98362   | .9477 21602   | 4477.6462 95908   | 4477.6464 07574   |
| .2   | .2228 89914   | .9748 43621   | 4948.5644 78852   | 4948.5645 79892   |
| .3   | .1244 54424   | .9922 25325   | 5469.0095 58370   | 5469.0096 49795   |
| .4   | +0.0247 75425 | .9996 93042   | 6044.1903 23746   | 6044.1904 06471   |
| 9.5  | -0.0751 51120 | -0.9971 72156 | + 6679.8633 77405 | + 6679.8634 52257 |
| .6   | .1743 26781   | .9846 87856   | 7382.3907 48924   | 7382.3908 16653   |
| .7   | .2717 60626   | .9623 64880   | 8158.8035 68366   | 8158.8036 29649   |
| .8   | .3664 79129   | .9304 26272   | 9016.8724 36188   | 9016.8724 91640   |
| .9   | .4575 35894   | .8891 91153   | 9965.1851 94028   | 9965.1852 44202   |
| 10.0 | -0.5440 21111 | -0.8390 71529 | +11013.2328 74703 | +11013.2329 20103 |

TABLE III

| Deg | Radians  | Deg | Radians  | Deg | Radians   | Min | Radians  | Sec | Radians  |
|-----|----------|-----|----------|-----|-----------|-----|----------|-----|----------|
| 0   | 0.000000 | 60  | 1.047198 | 120 | 2.094395  | 0   | 0.000000 | 0   | 0.000000 |
| 1   | .017453  | 61  | .064651  | 121 | .111848   | 1   | .000291  | 1   | .000005  |
| 2   | .034907  | 62  | .082104  | 122 | .129302   | 2   | .000582  | 2   | .000010  |
| 3   | .052360  | 63  | .099557  | 123 | .146755   | 3   | .000873  | 3   | .000015  |
| 4   | .069813  | 64  | .117011  | 124 | .164208   | 4   | .001164  | 4   | .000019  |
| 5   | .087266  | 65  | .134464  | 125 | .181662   | 5   | .001454  | 5   | .000024  |
| 6   | .104720  | 66  | .151917  | 126 | .199115   | 6   | .001745  | 6   | .000029  |
| 7   | .122173  | 67  | .169371  | 127 | .216568   | 7   | .002036  | 7   | .000034  |
| 8   | .139626  | 68  | .186824  | 128 | .234021   | 8   | .002327  | 8   | .000039  |
| 9   | .157080  | 69  | .204277  | 129 | .251475   | 9   | .002618  | 9   | .000044  |
| 10  | 0.174533 | 70  | 1.221730 | 130 | 2.268928  | 10  | 0.002909 | 10  | 0.000048 |
| 11  | .191986  | 71  | .239184  | 131 | .286381   | 11  | .003200  | 11  | .000053  |
| 12  | .209440  | 72  | .256637  | 132 | .303835   | 12  | .003491  | 12  | .000058  |
| 13  | .226893  | 73  | .274090  | 133 | .321288   | 13  | .003782  | 13  | .000063  |
| 14  | .244346  | 74  | .291544  | 134 | .338741   | 14  | .004072  | 14  | .000068  |
| 15  | .261799  | 75  | .308997  | 135 | .356194   | 15  | .004363  | 15  | .000073  |
| 16  | .279253  | 76  | .326450  | 136 | .373648   | 16  | .004654  | 16  | .000078  |
| 17  | .296706  | 77  | .343904  | 137 | .391101   | 17  | .004945  | 17  | .000082  |
| 18  | .314159  | 78  | .361357  | 138 | .408554   | 18  | .005236  | 18  | .000087  |
| 19  | .331613  | 79  | .378810  | 139 | .426008   | 19  | .005527  | 19  | .000092  |
| 20  | 0.349066 | 80  | 1.396283 | 140 | 2.443461  | 20  | 0.005818 | 20  | 0.000097 |
| 21  | .366519  | 81  | .413717  | 141 | .460914   | 21  | .006109  | 21  | .000102  |
| 22  | .383972  | 82  | .431170  | 142 | .478368   | 22  | .006400  | 22  | .000107  |
| 23  | .401426  | 83  | .448623  | 143 | .495821   | 23  | .006690  | 23  | .000112  |
| 24  | .418879  | 84  | .466077  | 144 | .513274   | 24  | .006981  | 24  | .000116  |
| 25  | .436332  | 85  | .483530  | 145 | .530727   | 25  | .007272  | 25  | .000121  |
| 26  | .453786  | 86  | .500983  | 146 | .548181   | 26  | .007563  | 26  | .000126  |
| 27  | .471239  | 87  | .518436  | 147 | .565634   | 27  | .007854  | 27  | .000131  |
| 28  | .488692  | 88  | .535890  | 148 | .583087   | 28  | .008145  | 28  | .000136  |
| 29  | .506145  | 89  | .553343  | 149 | .600541   | 29  | .008436  | 29  | .000141  |
| 30  | 0.523599 | 90  | 1.570796 | 150 | 2.617994  | 30  | 0.008727 | 30  | 0.000145 |
| 31  | .541052  | 91  | .588250  | 151 | .635447   | 31  | .009018  | 31  | .000150  |
| 32  | .558505  | 92  | .605703  | 152 | .652900   | 32  | .009308  | 32  | .000155  |
| 33  | .575959  | 93  | .623156  | 153 | .670354   | 33  | .009599  | 33  | .000160  |
| 34  | .593412  | 94  | .640609  | 154 | .687807   | 34  | .009890  | 34  | .000165  |
| 35  | .610865  | 95  | .658063  | 155 | .705260   | 35  | .010181  | 35  | .000170  |
| 36  | .628319  | 96  | .675516  | 156 | .722714   | 36  | .010472  | 36  | .000175  |
| 37  | .645772  | 97  | .692969  | 157 | .740167   | 37  | .010763  | 37  | .000179  |
| 38  | .663225  | 98  | .710423  | 158 | .757620   | 38  | .011054  | 38  | .000184  |
| 39  | .680678  | 99  | .727876  | 159 | .775074   | 39  | .011345  | 39  | .000189  |
| 40  | 0.698132 | 100 | 1.745329 | 160 | 2.792527  | 40  | 0.011636 | 40  | 0.000194 |
| 41  | .715585  | 101 | .762783  | 161 | .809980   | 41  | .011926  | 41  | .000199  |
| 42  | .733038  | 102 | .780236  | 162 | .827433   | 42  | .012217  | 42  | .000204  |
| 43  | .750492  | 103 | .797689  | 163 | .844887   | 43  | .012508  | 43  | .000208  |
| 44  | .767945  | 104 | .815142  | 164 | .862340   | 44  | .012799  | 44  | .000213  |
| 45  | .785398  | 105 | .832596  | 165 | .879793   | 45  | .013090  | 45  | .000218  |
| 46  | .802851  | 106 | .850049  | 166 | .897247   | 46  | .013381  | 46  | .000223  |
| 47  | .820305  | 107 | .867502  | 167 | .914700   | 47  | .013672  | 47  | .000228  |
| 48  | .837758  | 108 | .884956  | 168 | .932153   | 48  | .013963  | 48  | .000233  |
| 49  | .855211  | 109 | .902409  | 169 | .949606   | 49  | .014254  | 49  | .000238  |
| 50  | 0.872665 | 110 | 1.919862 | 170 | 2.967060  | 50  | 0.014544 | 50  | 0.000242 |
| 51  | .890118  | 111 | .937315  | 171 | .2.984513 | 51  | .014835  | 51  | .000247  |
| 52  | .907571  | 112 | .954769  | 172 | 3.001966  | 52  | .015126  | 52  | .000252  |
| 53  | .925025  | 113 | .972222  | 173 | .019420   | 53  | .015417  | 53  | .000257  |
| 54  | .942478  | 114 | 1.989675 | 174 | .036873   | 54  | .015708  | 54  | .000262  |
| 55  | .959931  | 115 | 2.007129 | 175 | .054326   | 55  | .015999  | 55  | .000267  |
| 56  | .977384  | 116 | .024582  | 176 | .071779   | 56  | .016290  | 56  | .000271  |
| 57  | 0.994838 | 117 | .042035  | 177 | .089233   | 57  | .016581  | 57  | .000276  |
| 58  | 1.012291 | 118 | .059489  | 178 | .106686   | 58  | .016872  | 58  | .000281  |
| 59  | .029744  | 119 | .076942  | 179 | .124139   | 59  | .017162  | 59  | .000286  |
| 60  | 1.047198 | 120 | 2.094395 | 180 | 3.141593  | 60  | 0.017453 | 60  | 0.000291 |

| Radians  | Deg  | Min | Sec | Degrees     |
|----------|------|-----|-----|-------------|
| 0.0001   | 0    | 0   | 21  | 0.005730    |
| .0002    | 0    | 0   | 41  | .011459     |
| .0003    | 0    | 1   | 2   | .017189     |
| .0004    | 0    | 1   | 23  | .022918     |
| .0005    | 0    | 1   | 43  | .028648     |
| .0006    | 0    | 2   | 4   | .034377     |
| .0007    | 0    | 2   | 24  | .040107     |
| .0008    | 0    | 2   | 45  | .045837     |
| .0009    | 0    | 3   | 6   | .051566     |
| 0.0010   | 0    | 3   | 26  | 0.057296    |
| .0020    | 0    | 6   | 53  | .114592     |
| .0030    | 0    | 10  | 19  | .171887     |
| .0040    | 0    | 13  | 45  | .229183     |
| .0050    | 0    | 17  | 11  | .286479     |
| .0060    | 0    | 20  | 38  | .343775     |
| .0070    | 0    | 24  | 4   | .401070     |
| .0080    | 0    | 27  | 30  | .458366     |
| .0090    | 0    | 30  | 56  | .515662     |
| 0.0100   | 0    | 34  | 23  | 0.572958    |
| .0200    | 1    | 8   | 45  | 1.145916    |
| .0300    | 1    | 43  | 8   | 1.718873    |
| .0400    | 2    | 17  | 31  | 2.291831    |
| .0500    | 2    | 51  | 53  | 2.864789    |
| .0600    | 3    | 26  | 16  | 3.437747    |
| .0700    | 4    | 0   | 39  | 4.010705    |
| .0800    | 4    | 35  | 1   | 4.583662    |
| .0900    | 5    | 9   | 24  | 5.156620    |
| 0.1000   | 5    | 43  | 46  | 5.729578    |
| .2000    | 11   | 27  | 33  | 11.459156   |
| .3000    | 17   | 11  | 19  | 17.188734   |
| .4000    | 22   | 55  | 6   | 22.918312   |
| .5000    | 28   | 38  | 52  | 28.647890   |
| .6000    | 34   | 22  | 39  | 34.377468   |
| .7000    | 40   | 6   | 25  | 40.107046   |
| .8000    | 45   | 50  | 12  | 45.836624   |
| .9000    | 51   | 33  | 58  | 51.566202   |
| 1.0000   | 57   | 17  | 45  | 57.295780   |
| 2.0000   | 114  | 35  | 30  | 114.591559  |
| 3.0000   | 171  | 53  | 14  | 171.887339  |
| 4.0000   | 229  | 10  | 59  | 229.183118  |
| 5.0000   | 286  | 28  | 44  | 286.478898  |
| 6.0000   | 343  | 46  | 29  | 343.774677  |
| 7.0000   | 401  | 4   | 14  | 401.070457  |
| 8.0000   | 458  | 21  | 58  | 458.366236  |
| 9.0000   | 515  | 39  | 43  | 515.662016  |
| 10.0000  | 572  | 57  | 28  | 572.957795  |
| 20.0000  | 1145 | 54  | 56  | 1145.915590 |
| 30.0000  | 1718 | 52  | 24  | 1718.873385 |
| 40.0000  | 2291 | 49  | 52  | 2291.831181 |
| 50.0000  | 2864 | 47  | 20  | 2864.788976 |
| 60.0000  | 3437 | 44  | 48  | 3437.746771 |
| 70.0000  | 4010 | 42  | 16  | 4010.704566 |
| 80.0000  | 4583 | 39  | 44  | 4583.662361 |
| 90.0000  | 5156 | 37  | 13  | 5156.620156 |
| 100.0000 | 5729 | 34  | 41  | 5729.577951 |

## OTHER TABLES

BY THE

## PROJECT FOR THE COMPUTATION OF MATHEMATICAL TABLES

1. Tables of the Exponential Function  $e^x$ . (pub. 1939).

| <u>Range</u> | <u>Interval</u> | <u>No. of Decimals</u> |
|--------------|-----------------|------------------------|
| -2.5 to 1.0  | 0.0001          | 18                     |
| 1.0 to 2.5   | 0.0001          | 15                     |
| 2.5 to 5.0   | 0.001           | 15                     |
| 5.0 to 10.0  | 0.01            | 12                     |

2. Table of the First Ten Powers of the Integers from 1 to 1,000.  
(pub. 1939).

3. Table of Sines and Cosines for Radian Arguments.

Values of these functions to 8 places of decimals from 0 to 25  
radians at intervals of 0.001.

4. Tables of  $Si(x)$ ,  $ci(x)$ ,  $Ei(x)$  and  $-Ei(-x)$ .

Values of these functions to 9 places of decimals from  
0 to 2 at intervals of 0.0001.

5. Tables of  $Si(x)$ ,  $ci(x)$ ,  $Ei(x)$  and  $-Ei(-x)$ .

Values of these functions to 9 or 10 significant figures  
from 0 to 10 at intervals of 0.001.

6. Table of the Natural Logarithms of the Integers from 1 to 100,000.

Vol. I. From 1 to 50,000 to 16 places of decimals.

Vol. II. From 50,000 to 100,000 to 16 places of decimals.

7. Table of the Natural Logarithms of the Decimal Numbers between  
0 and 10.

Vol. I. From 0 to 5 at intervals of 0.0001 to 16 places  
of decimals.

Vol. II. From 5 to 10 at intervals of 0.0001 to 16 places  
of decimals.

8. Tables of  $\frac{2}{\sqrt{\pi}} e^{-x^2}$  and of the Integral  $\frac{2}{\sqrt{\pi}} \int_0^x e^{-\alpha^2} d\alpha$   
From 0 to 1 at intervals of 0.0001 to 15 places of decimals.  
From 1 to 6 at intervals of 0.001 to 15 places of decimals.

9. Tables of  $\sqrt{\frac{2}{\pi}} e^{-\frac{x^2}{2}}$  and of the Integral  $\sqrt{\frac{2}{\pi}} \int_0^x e^{-\frac{t^2}{2}} dt$   
 From 0 to 1 at intervals of 0.0001 to 15 places of decimals  
 From 1 to 8.5 at intervals of 0.001 to 15 places of decimals

10. Table of the Bessel Function  $J_0(z) = J_0(re^{i\theta})$  to 9 places of decimals.

$r$  ranges from 0 to 10 at intervals of 0.01.

$\theta$  ranges from 0 to 90 degrees at intervals of 5 degrees.

11. Table of the Bessel Function  $J_1(z) = J_1(re^{i\theta})$  to 9 places of decimals.

$r$  ranges from 0 to 10 at intervals of 0.01.

$\theta$  ranges from 0 to 90 degrees at intervals of 5 degrees.

12. A series of Physical Tables

(a) Table of  $G = \frac{1}{\sqrt{1-\beta^2}}$

$\beta$  ranging from 0 to 0.9997 at various intervals.

This table also includes functions depending on  $G$ .

(b) Table of the Integral  $J_{0-\lambda} = \int_0^\lambda \frac{c_1 d\alpha}{\alpha^5 (e^{\frac{c_2}{\alpha^2}} - 1)}$

$\lambda$  ranging from 1 to 20 microns at various intervals.

$T = 1000$  degrees absolute.

(c) Table of the Integral  $N_{0-\lambda} = 2\pi c \int_0^\lambda \frac{d\alpha}{\alpha^4 (e^{\frac{c_2}{\alpha^2}} - 1)}$

$\lambda$  ranging from 1 to 20 microns at various intervals.

$T = 1000$  degrees absolute.

(d) Table of the Function  $N = \frac{2\pi c}{\lambda^4} \cdot \frac{1}{e^{\frac{c_2}{\lambda^2}} - 1}$

$\lambda$  ranging from 0 to 10 microns at various intervals.

$T = 1000, 1500, 2000, 2500, 3000, 3500$  and  $6000$  degrees absolute.